GW-MF54G2

User’s Manual

Foreword

Explanation of the signals

In order to let you set up and use this product correctly, please pay attention when reading or browsing the manual as you see these signals listed below.

Warning/ Danger

Users should read the explanation carefully and understand it completely, otherwise users might be in danger or even be injured.

Caution/ Be Careful

Remind users to be careful when setting up the product and to avoid damaging the product or its system programs.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Trademarks:

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Chapter1 Introduction to GW-MF54G2

Introduction

Thank you for purchasing GW-MF54G2, the portable and multi-function Ethernet Router. GW-MF54G2 has **1** Ethernet port, and supports both 10 and 100 Base-T connections, and you can expand your wireless network easily.

GW-MF54G2 supports 64/128 bit WEP encryption, WPA and IEEE802.1x protocol, which can protect your system's security while surfing wirelessly. The IP Filtering and the MAC Filtering function make it much easier for you to filter all the users who are connecting to GW-MF54G2.

GW-MF54G2 has a lot of advanced functions, and all the configurations are easy to use. Also, GW-MF54G2 has a built-in Web server, thus you can access its settings through Web browsers, such as IE, Netscape, Firefox, and so on. You can set up and configure the settings easily and completely and enjoy the convenience instantly.

Special Features:

- Support WPA, WPA2, WPA-PSK, WPA2-PSK, WAP-RADIUS, and WPA2-RADIUS wireless security protocol.
- Support three different function modes: AP(Access Point), Router, and Converter.
- Built in Web server.
- Support SSID broadcast function.

1. Contents of Package

After purchasing GW-MF54G2 Wireless Router from a distributor or an agency, please open the package and check that all the components listed below are included. If there is any item missing or damaged, please contact with the distributor or the agency at once.

- GW-MF54G2
- 2dBi Antenna x 1
- Quick Installation Guide x 1
- Product CD-ROM (User's Manual) x 1
- AC Adapter x 1
- UTP Cable(1 meter) x 1
- Conrad manual x 1

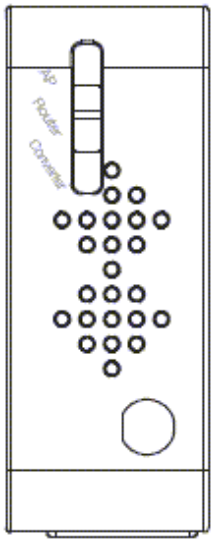
If plug the AC adapter which includes in the product package into a socket with different voltage power supply, it will cause damage and that is not included in warranty.

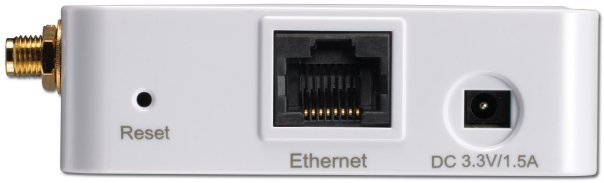
2. Product Function

Front Panel—LEDs

LEDs	Status	Meaning
Power	ON	If there is no problem with GW-MF54G2, the Power LED will be on after you turning on.
Wireless	On/Flashing	Wireless LAN will be on if the wireless signal is fine. When GW-MF54G2 is receiving or transmitting data, the Wireless LAN will be flashing.
Ethernet	On/Flashing	The Ethernet LED will be on if the Ethernet port is connecting to modem or PC. The Ethernet LED will be flashing when receiving or transmitting data.

Side Panel—Ports





Port	Function	
Ethernet	Use standard LAN cable (RJ-45 connectors) to connect your PC or modem to this port.	
Power	Plug the power cord into this port and the other side of the adaptor should be plugged into the socket.	
Button	**Function**	**Usage**
Reset	Reset to Default	Press and hold this button for 10 seconds, all the configuration values of GW-MF54G2 will reset to default.
AP/Router/Converter	Switching Mode	Pull the switch to switch GW-MF54G2 to AP, Router and Converter mode.

If you want to change the operating mode of GW-MF54G2, please do so by the steps down below:

1. Unplug the power cord of GW-MF54G2.
2. Pull the AP/Router/Converter switch to the mode you would like to choose.
3. Plug the power cord of GW-MF54G2 back.

GW-MF54G2 will apply to the mode you choose after power on.

3. GW-MF54G2 Operating Mode

GW-MF54G2 supports three different operating modes, which are: "**AP (Access Point)**", "**Router**", and "**Converter**". Please **set the switch on GW-MF54G2 to the operating mode you would like to choose** base on the real situation of your network environment.

In **AP (Access Point)** mode, the Ethernet port of GW-MF54G2 is connected with the LAN port of your router with a RJ-45 cable. All devices (including all the PCs and laptops with wireless network card) are connected with GW-MF54G2 wirelessly. If the AP has Internet access, all devices connected to GW-MF54G2 can have access to the Internet as well.

In **Router** mode, the Ethernet port of GW-MF54G2 is connected with your cable modem or the LAN port of your modem with a RJ-45 cable. Your computer will connect with GW-MF54G2 wirelessly and have Internet access.

In **Converter** mode, the Ethernet port of GW-MF54G2 is connected with your computer's LAN port with a RJ-45 cable. In order to have Internet access, you have to connect with other wireless router or devices wirelessly.

Please setup and configure GW-MF54G2 following the steps below.

3.1. GW-MF54G2 AP Mode Setup

1. Unwrap the package of GW-MF54G2 Wireless Router and check if the components are intact and without missing anything.
2. **Choose an Installation Site.**

   Select a suitable place on the network to install GW-MF54G2 Wireless Router. And make sure that the Wireless Router and the DSL/Cable modem are not powered on yet.

> For best Wireless reception and performance, the Wireless Router should be positioned in a central location with minimum obstructions between the GW-MF54G2 and the PCs. Also, if using multiple Access Points, adjacent Access Points should use different Channels.

3. **Set the switch on GW-MF54G2 to AP Mode.**
4. **Connect LAN Cables.**

   Use standard LAN cables to connect **routers** or **switches** to Ethernet ports on GW-MF54G2. Both 10 Base-T and 100 Base-T connections can be used.
5. **Power On.**

   Power the DSL or Cable modem on. Connect the adapter with GW-MF54G2 and plug the other side of the power cord into the power socket to power on it. While detecting, the **Power** LED will be on, and **Ethernet** LEDs will be blinking when GW-MF54G2 is transmitting files.

> Plug the AC Adapter which comes with GW-MF54G2 in a different voltage power supply will cause damage on GW-MF54G2, and it is not included in warranty.

3.2. GW-MF54G2 Router Mode Setup

1. Unwrap the package of GW-MF54G2 Wireless Router and check if the components are intact and without missing anything.

2. **Choose an Installation Site.**

   Select a suitable place on the network to install GW-MF54G2 Wireless Router. And make sure that the Wireless Router and the DSL/Cable modem are not powered on yet.

⚠	For best Wireless reception and performance, the Wireless Router should be positioned in a central location with minimum obstructions between the GW-MF54G2 and the PCs. Also, if using multiple Access Points, adjacent Access Points should use different Channels.

3. **Set the switch on GW-MF54G2 to Router Mode.**

4. **Connect LAN Cables.**

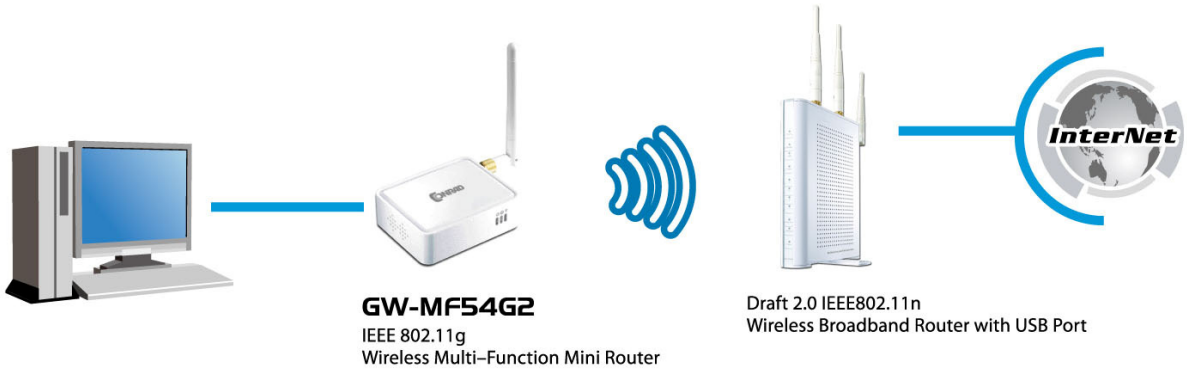
   Use standard LAN cables to connect **DSL** or **cable modem** to Ethernet ports on GW-MF54G2. Both 10 Base-T and 100 Base-T connections can be used. **Note: In order to connect GW-MF54G2 with your computer, a wireless network interface card is required.**

5. **Power On.**

   Power the DSL or Cable modem on. Connect the adapter with GW-MF54G2 and plug the other side of the power cord into the power socket to power on it. While detecting, the **Power** LED will be on, and **Ethernet** LEDs will be blinking when GW-MF54G2 is transmitting files.

⚠	Plug the AC Adapter which comes with GW-MF54G2 in a different voltage power supply will cause damage on GW-MF54G2, and it is not included in warranty.

3.3. GW-MF54G2 Converter Mode Setup



1. Unwrap the package of GW-MF54G2 Wireless Router and check if the components are intact and without missing anything.
2. **Choose an Installation Site.**

   Select a suitable place on the network to install GW-MF54G2 Wireless Router. And make sure that the Wireless Router and the DSL/Cable modem are not powered on yet.

	For best Wireless reception and performance, the Wireless Router should be positioned in a central location with minimum obstructions between the GW-MF54G2 and the PCs. Also, if using multiple Access Points, adjacent Access Points should use different Channels.

3. **Set the switch on GW-MF54G2 to Converter Mode.**
4. **Connect LAN Cables.**

   Use standard LAN cables to connect **your computer** to Ethernet ports on GW-MF54G2. Both 10 Base-T and 100 Base-T connections can be used.
5. **Power On.**

   Power the DSL or Cable modem on. Connect the adapter with GW-MF54G2 and plug the other side of the power cord into the power socket to power on it. While detecting, the **Power** LED will be on, and **Ethernet** LEDs will be blinking when GW-MF54G2 is transmitting files.

	Plug the AC Adapter which comes with GW-MF54G2 in a different voltage power supply will cause damage on GW-MF54G2, and it is not included in warranty.

Chapter2 Setup & Configuration

1. Client's Computer Setup

The computers on your LAN need to be set up to cooperate with GW-MF54G2 Wireless Router. Please make sure that your operating system already enabled your interface card on the host and connected to one of the LAN ports on GW-MF54G2 through Cat.5 cable. Be sure that LEDs on GW-MF54G2 are already on and the LED corresponds with the port which you connected. If you switch on GW-MF54G2 for the first time, it will automatically enable the embedded DHCP server and start to distribute IP to your host. In addition, the default IP address of GW-MF54G2 is "**192.168.1.100**". If your operating system is Windows 98/2000/XP, you may be able to use command of "**ipconfig**" to inquire whether you have the correct IP address or not. If you are using Linux/Unix-Like system, you can use "**ifconfig**" to check your NIC (Network Interface Card) address. The instructions are as follows:

- **Windows98**

1. Click "**Start→Programs→MS-DOS**" or "**Start→Run...**" and type in "**command.exe**" and then press enter.
2. "**MS-DOS**" window will appear.
3. Type "**ipconfig**" after the command of "**c:>**" and then press enter.
4. MS-DOS will appear your NIC address in the window, please take notice of the value of "**IP Address**" and "**Default Gateway**."
5. The value of "**Default Gateway**" is the IP address of GW-MF54G2.

- **Windows2000/XP**

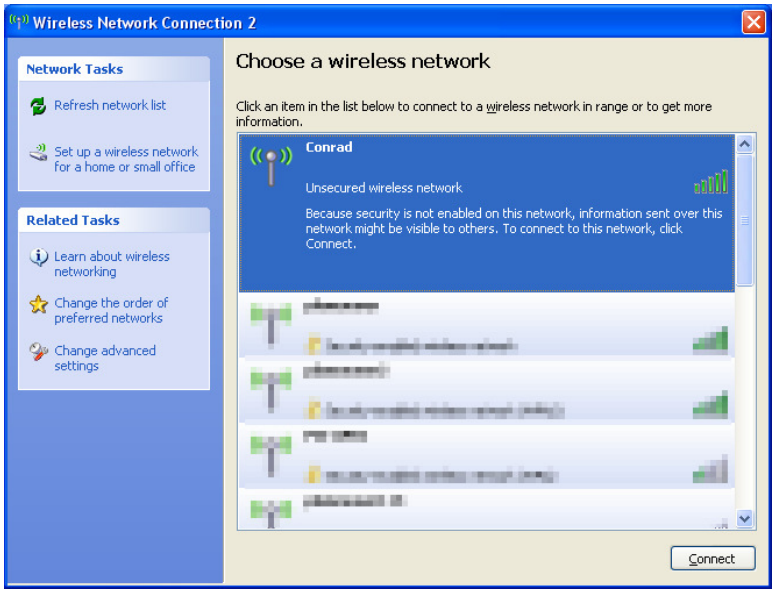
1. Please make sure that you do have the authority to access as an "**Administrator**" or you are already one of the "System Administrators."
2. Click "**Start→Programs→Accessories→Command Prompt**" or "**Start→Run...**," and then type in "**cmd.exe**" and press enter.
3. It will appear a "**MS-DOS**" window.
4. Type "**ipconfig**" after the command of "**c:>**" and then press enter.
5. MS-DOS will appear your NIC address in the window, please take notice of the value of "IP Address" and "**Default Gateway**."
6. The value of "**Default Gateway**" is the IP address of GW-MF54G2.

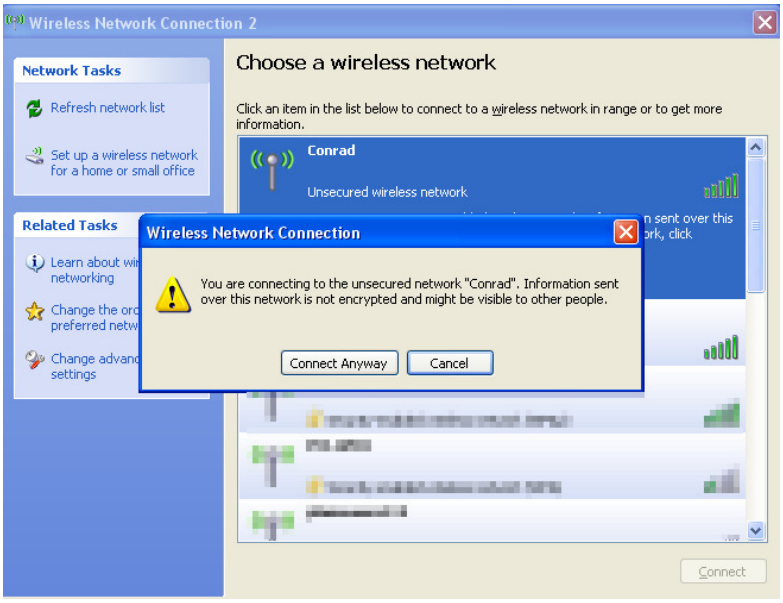
- **Linux / Unix-Like**

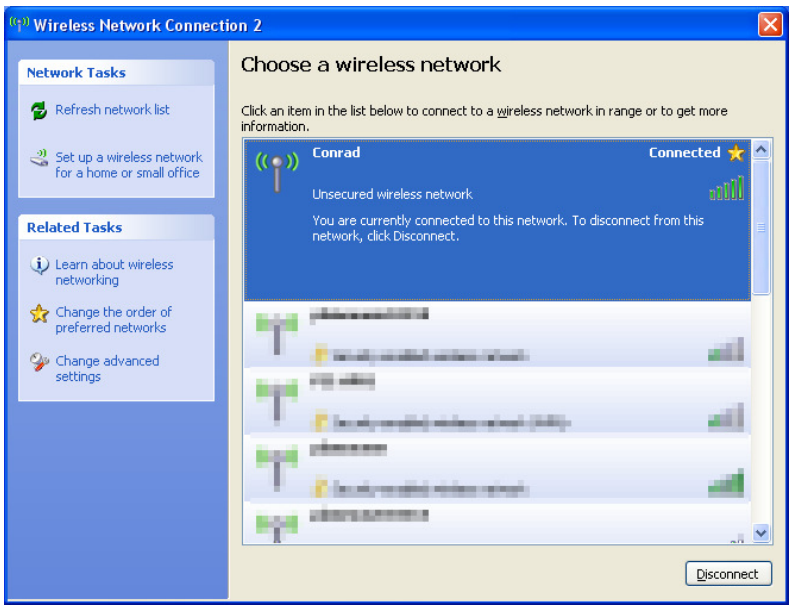
1. At first please make sure that your NIC are already enabled and works properly.
2. And be sure you have "**root**" number or your already are one of the members of a "root" group.
3. Please type "**ifconfig**" of "**ifconfig -a**" after "**#**" and then press enter.
4. It will appear your present NIC address in the window, please take notice of the value of "**IP Address**" and "**Gateway**."
5. The value of "**Gateway**" is the IP address of GW-MF54G2.

If you can get "**IP Address**" and "**Gateway**," normally, it means that you may use web browser to configure GW-MF54G2. Type your destination—"http://192.168.1.100" (default IP Address of GW-MF54G2) on the Address Bar in the web browser. If you have changed the default IP Address of GW-MF54G2, please type in the new address on the address bar.

Note: If you set your GW-MF54G2 to **AP** or **Router** mode, you will have to connect with GW-MF54G2 wirelessly. Please connect to a wireless AP with the name of "**Conrad**" so you can log on to the configuration webpage.


Wireless Network Connection 2
Network Tasks
Refresh network list
Set up a wireless network for a home or small office
Related Tasks
Learn about wireless networking
Change the order of preferred networks
Change advanced settings
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information.
Conrad
Unsecured wireless network
Because security is not enabled on this network, information sent over this network might be visible to others. To connect to this network, click Connect.
Connect


Wireless Network Connection 2
Network Tasks
Refresh network list
Set up a wireless network for a home or small office
Related Tasks
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information.
Conrad
Unsecured wireless network
Wireless Network Connection
You are connecting to the unsecured network "Conrad". Information sent over this network is not encrypted and might be visible to other people.
Connect Anyway
Cancel
Connect


Wireless Network Connection 2
Network Tasks
Refresh network list
Set up a wireless network for a home or small office
Related Tasks
Learn about wireless networking
Change the order of preferred networks
Change advanced settings
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information.
Conrad
Connected
Unsecured wireless network
You are currently connected to this network. To disconnect from this network, click Disconnect.
Disconnect

2. Web Configuration

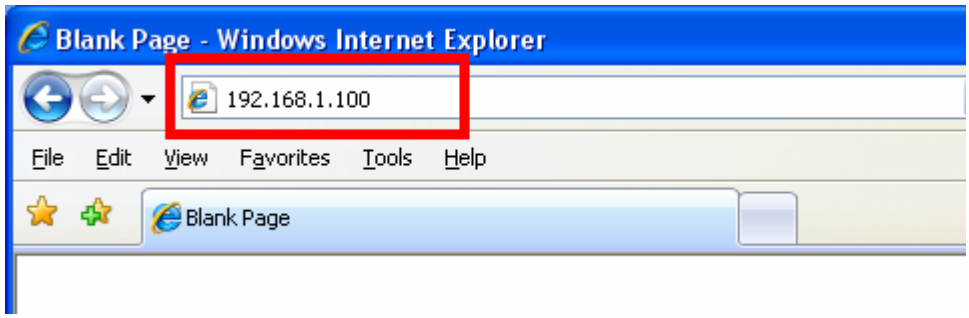
GW-MF54G2 contains an HTTP server. This enables you to connect the router, and configure it by using your web browser.

The GW-MF54G2 Wireless Router's default IP Address is "**192.168.1.100**". If the IP address has already used by another device, the other device must be turned OFF until GW-MF54G2 is allocated a new IP Address.

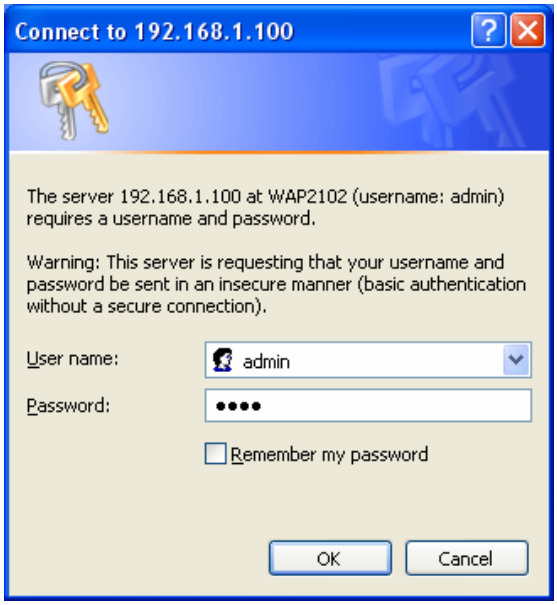
Using Web Browser

To establish a connection between your PC and the GW-MF54G2 Wireless Router:

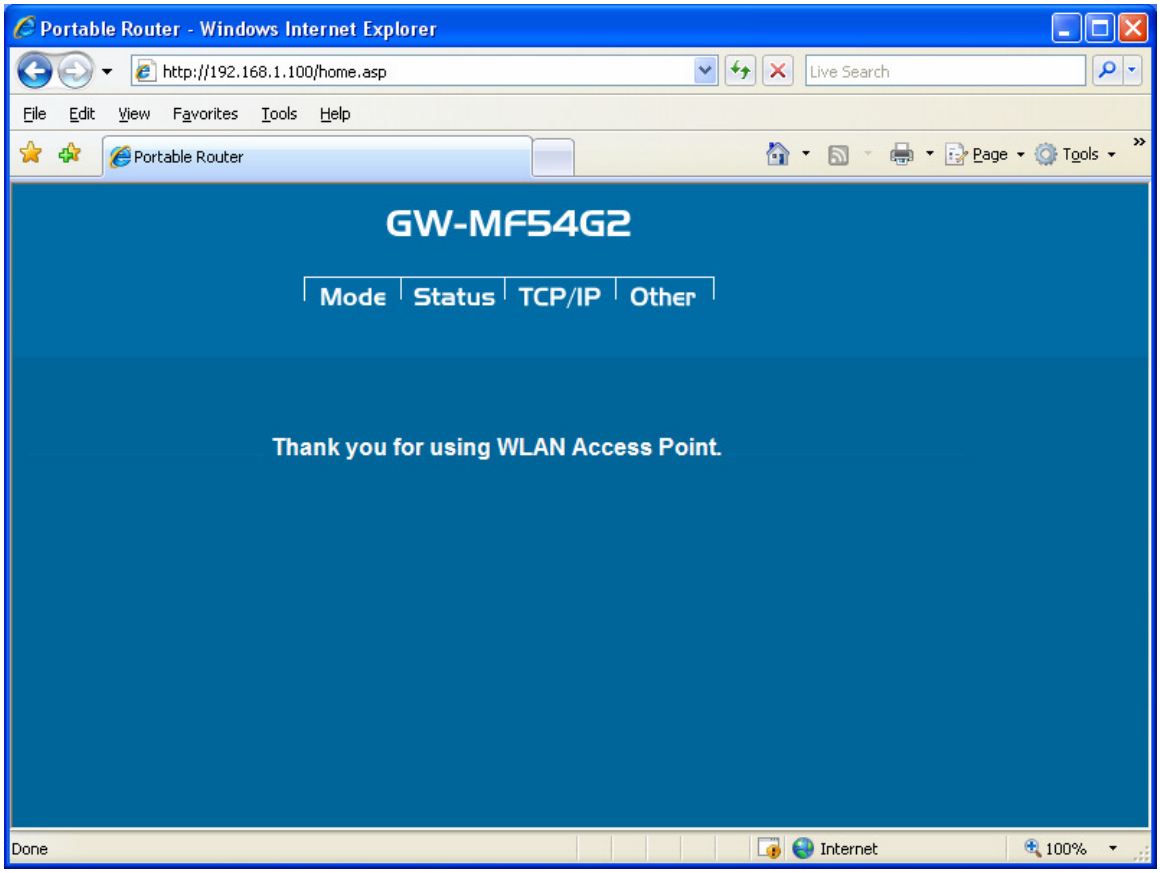
1. Start the WEB browser.
2. In the Address box, enter "http://192.168.1.100" which is the default IP Address of the GW-MF54G2 Wireless Router. Press "**Enter**" on your keyboard, and the pop-up will ask you to enter the **User Name** and **Password** to get into the program.



3. Enter the default User Name "**admin**" and Password "**0000**" and then click "**OK**" to enter the system. You can also put a check in the "**Remember my password**" check box, and next time you do not need to enter password to enter the system.


Connect to 192.168.1.100
The server 192.168.1.100 at WAP2102 (username: admin) requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
admin
Password:
Remember my password
OK
Cancel

4. After entering the system, GW-MF54G2 will show you the homepage. During configuration, you can use the links on the top of the page to navigate. Besides, it is necessary that, after configuring, you should click "**Apply**" to enable the settings you've made.


Portable Router - Windows Internet Explorer
http://192.168.1.100/home.asp
Live Search
File Edit View Favorites Tools Help
Portable Router
Page Tools
GW-MF54G2
Mode Status TCP/IP Other
Thank you for using WLAN Access Point.
Done
Internet
100%

Chapter 3 AP Mode Configuration

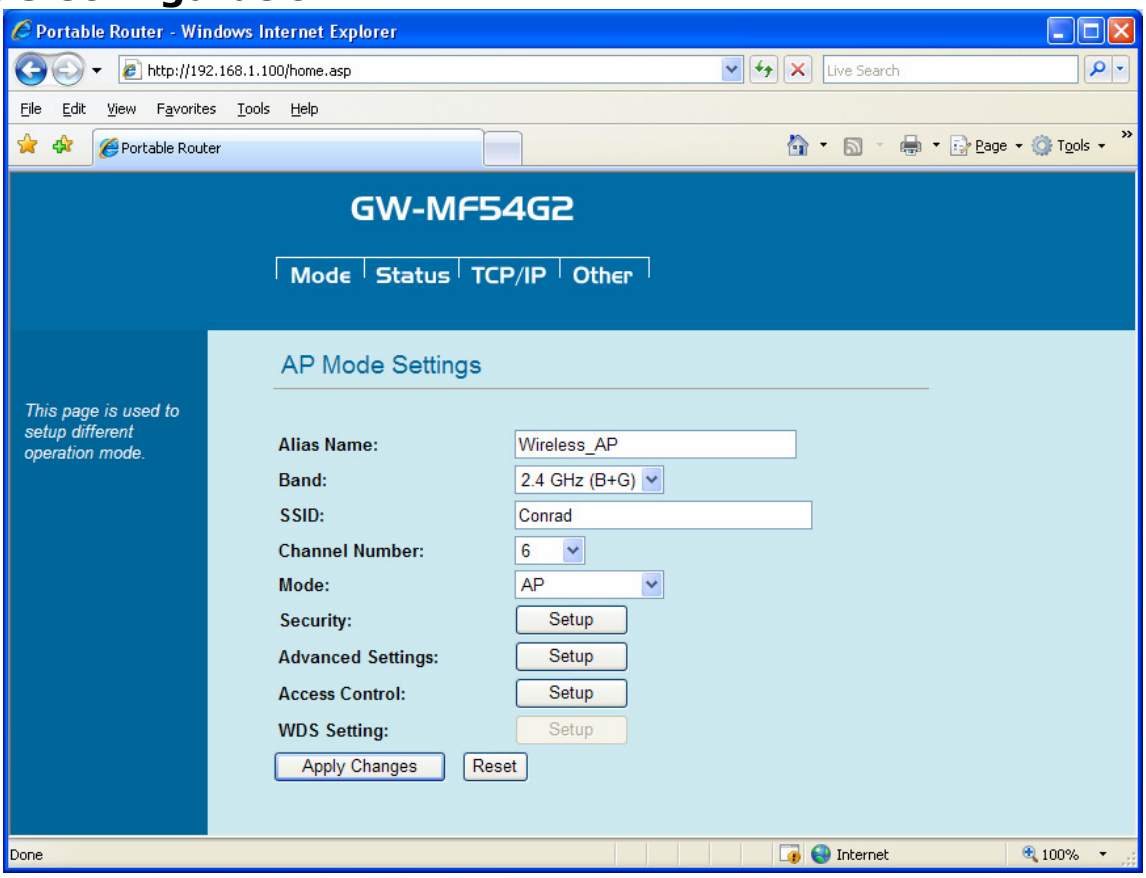
AP (Access Point)

In AP mode (Access Point Mode), GW-MF54G2's Ethernet port is connected to the LAN port of your router with a RJ-45 cable. All the devices connect to GW-MF54G2 (including PC/Laptop with wireless Network card) wirelessly. If GW-MF54G2 has access to the Internet, all the devices connect to GW-MF54G2 can have access to the Internet as well.

Portable Router - Windows Internet Explorer
http://192.168.1.100/home.asp
Live Search
File Edit View Favorites Tools Help
Portable Router
Page Tools
GW-MF54G2
Mode Status TCP/IP Other
This page is used to setup different operation mode.
Operation Mode
Access Point:
Setup
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.The wireless mode is AP mode.
Router Mode:
Setup
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Converter Mode:
Setup
Client-Infrastructure.
Done
Internet
100%

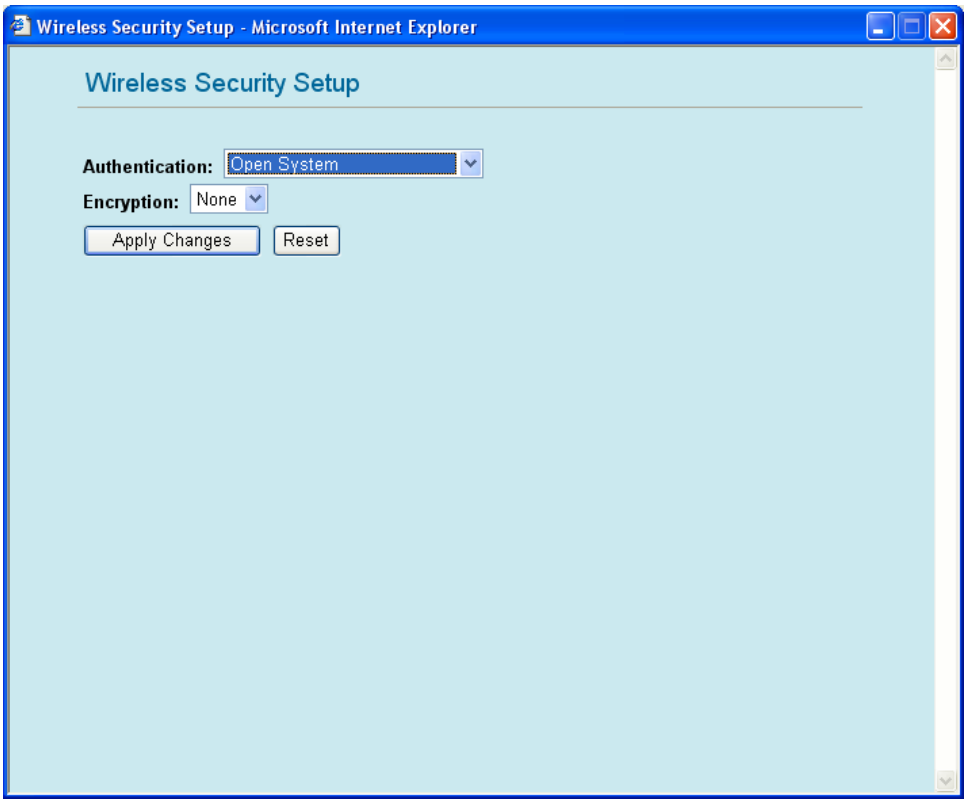
Please click "**Setup**" to start configuring the AP Mode, and click "**Apply**" to save the changes you made after finishing configuration.

1. AP Mode Configuration



- **Alias Name:** Please enter a name for GW-MF54G2.
- **Band:** Scroll down the list to choose a band width. There are six kinds of modes: **2.4 GHz (B)**, **2.4 GHz (G)**, and **2.4 GHz (B+G)**.
- **SSID:** Every SSID is unique in the WLAN (SSID can be 16-digitASCII characters and case-sensitive). SSID can prevent two nearby WLAN from combining to be one. You can give GW-MF54G2 an SSID, and only whose SSID is the same with it can connect with it. The default SSID is **"Conrad". Notice: When entering your SSID, please don't use special characters such as "@", "#", "$", "%", "^", "&", "*", "(", and ")". Using special characters or symbols could cause wireless connection difficulties.**
- **Channel Number:** Here shows the channels provided by the local wireless connection. The setting of the channels of the wireless network should be the same as the wireless APs.
- **Mode:** Scroll down to choose one of the mode.
  - **AP:** Standard Access Point mode.
  - **Repeater:** GW-MF54G2 will be connected with other wireless routers and expand the range of the wireless network.

2. Security



In this page, you can configure the security of your wireless network. Selecting different method can make different levels of security. However, no matter what kind of authentication or encryption you use to prevent data packets from being eavesdropped by people without authentication, it may cause decrease of the data throughput of the wireless connection.

Authentication and Encryption

There are several kinds of authentication of GW-MF54G2 wireless Router**.** After selecting the authentication mode, it has to cooperate with the encryption type. The settings of authentication on the destination network must be the same with GW-MF54G2.

Open System –If enabling this mode, there is no need authentication to access AP or wireless NIC.
Pre-Shared Key –Only those who are sharing the same key with the AP can connect with it.
WEP –WEP is short for Wired Equivalent Privacy, a security protocol for WLANs defined in the 802.11b standard. WEP is designed to provide the same level of security as that of a wired LAN. WEP aims to provide security by encrypting data over radio waves so that it is protected as it transmitted from one end point to another. There are two kinds of WEP encryption: 64 bit and 128 bit. 64 bit needs 10 hex characters to be the key and 128 bit needs 26 hex characters.
WPA – is short for Wi-Fi Protected Access. It was designed to improve upon the security features of WEP. The technology is designed to work with existing Wi-Fi products that have been enabled with WEP. Through the data encryption, access control and authentication, it provides better protection over data transmission. WPA uses 128-digit keys to ensure the wireless network privacy and security.
WPA2 – is short for Wi-Fi Protected Access 2. It is the follow on security method to WPA for wireless networks that provides stronger data protection and network access control. It provides enterprise and consumer Wi-Fi users with a high level of assurance that only authorized users can access their wireless networks. There are two versions of WPA2: WPA2-Personal, and WPA2- Enterprise. WPA2-Personal

protects unauthorized network access by utilizing a set-up password. WPA2-Enterprise verifies network users through a server. WPA2 is backward compatible with WPA.

WPA-PSK – is short for Wi-Fi Protected Access-Pre-Shared Key. WPA-PSK uses the same encryption way with WPA, and the only difference between them is that WPA-PSK recreates a simple shared key, instead of using the user's certification.

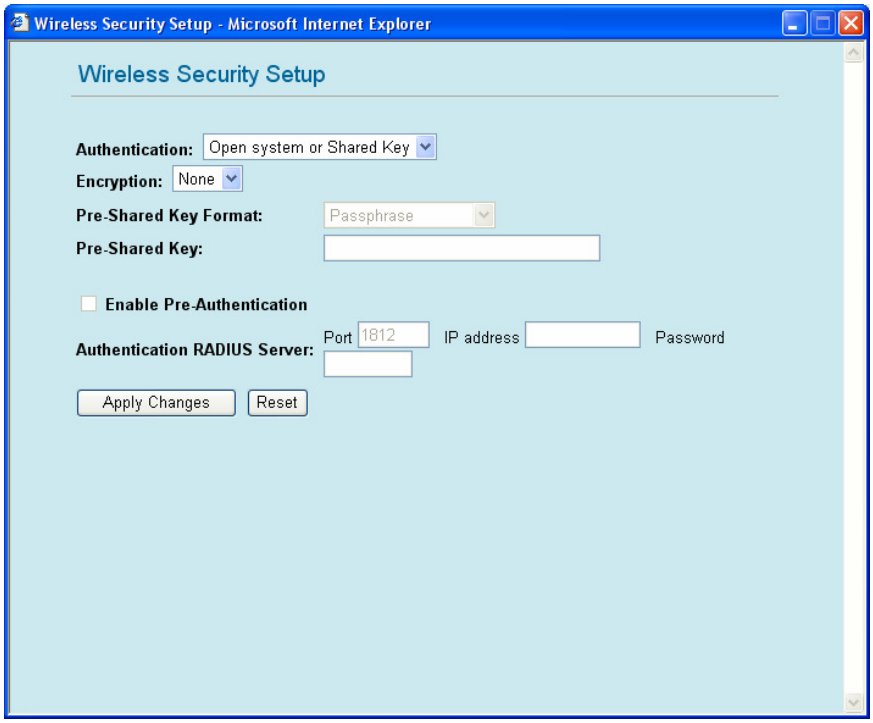
TKIP – is short for **Temporal Key Integrity Protocol**. TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.

AES – is short for **Advanced Encryption Standard**. AES is a symmetric 128-bit block data encryption technique. It has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.

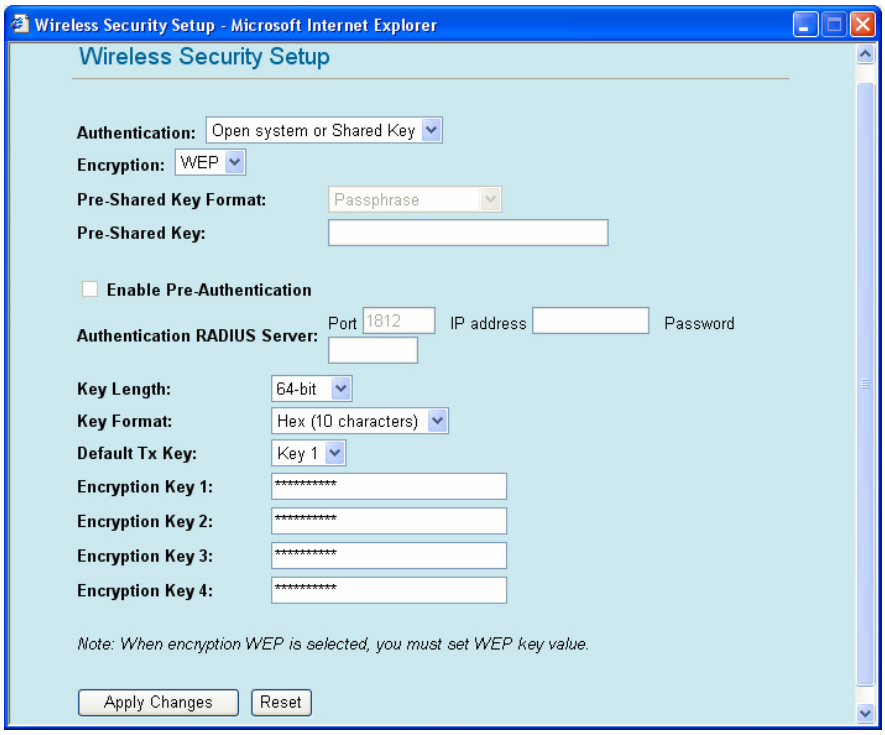
RADIUS – is short for Remote Authentication Dial-In User Service, an authentication and accounting system used by many Internet Service Providers (ISPs). RADIUS setup is used to set up additional parameters for authorizing wireless clients through RADIUS server. The RADIUS setup is required when you select to use **Open System with 802.1x** or **WPA** authentication.

Click and select an encryption for GW-MF54G2.

2.1. Open system or Shared Key

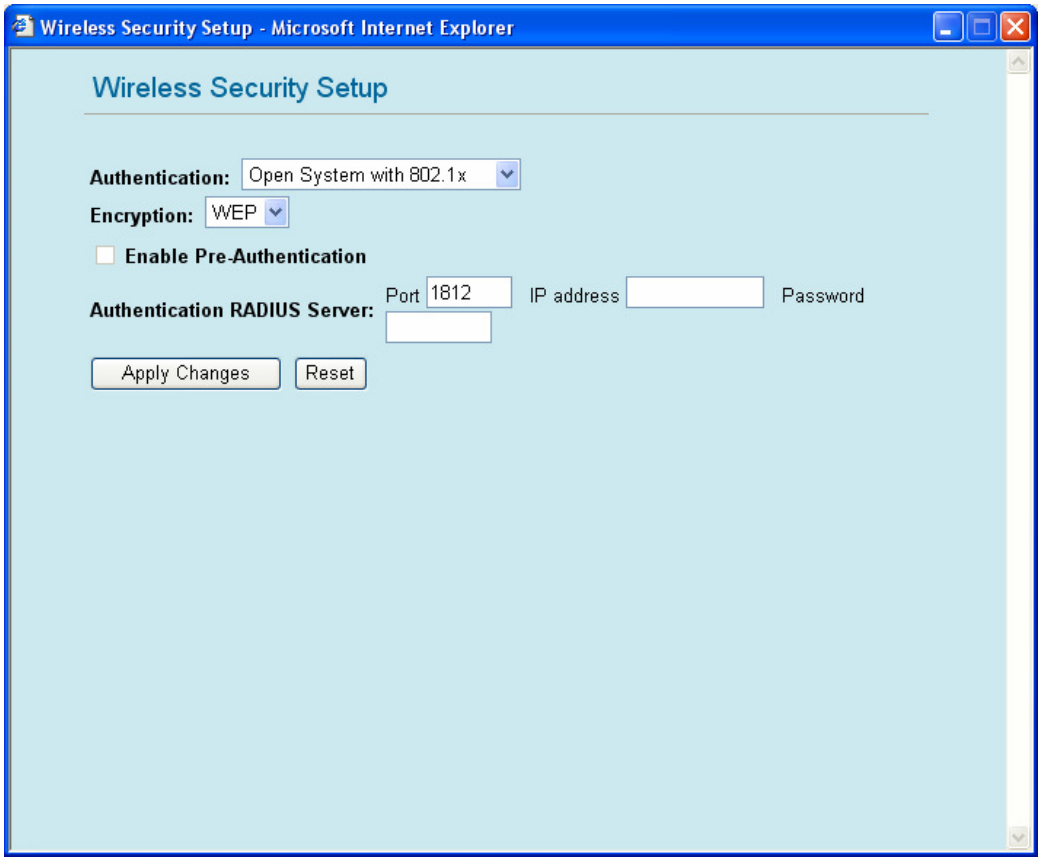


- **Authentication:** Scroll down the list and choose the authentication for GW-MF54G2.


Wireless Security Setup - Microsoft Internet Explorer
Wireless Security Setup
Authentication: Open system or Shared Key
Encryption: WEP
Pre-Shared Key Format: Passphrase
Pre-Shared Key:
Enable Pre-Authentication
Authentication RADIUS Server: Port 1812 IP address Password
Key Length: 64-bit
Key Format: Hex (10 characters)
Default Tx Key: Key 1
Encryption Key 1: **********
Encryption Key 2: **********
Encryption Key 3: **********
Encryption Key 4: **********
Note: When encryption WEP is selected, you must set WEP key value.
Apply Changes
Reset

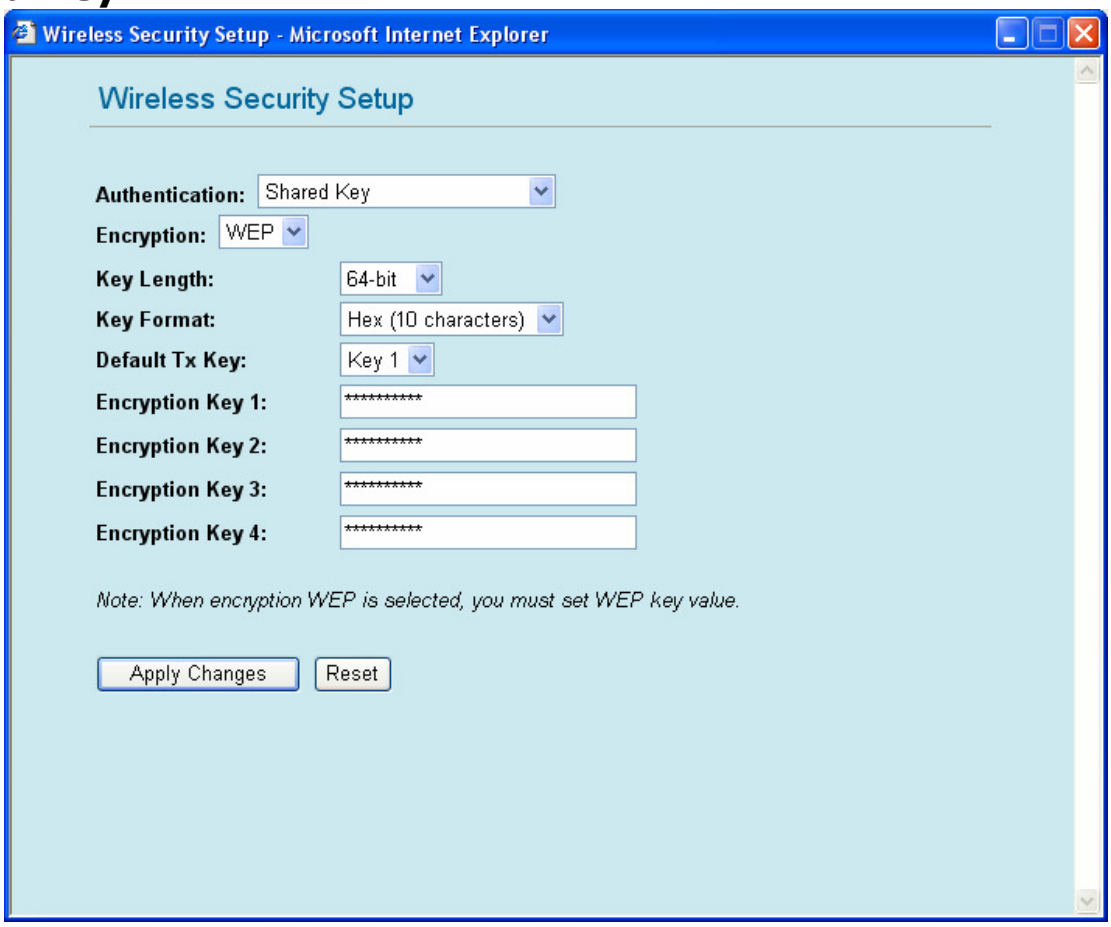
- **Key Length:** Here you can choose the length of your authentication key as **64-bit** or **128-bit.**
- **Key Format:** You can choose the format for your Encryption key here.
- **Default Tx Key:** You can enter four Encryption keys and select one of them as default Tx key. GW-MF54G2 can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4:** Only the Key select in the Default Tx Key will be used for wireless transmission encryption.
- **Apply Changes** : Click this button to save the settings and restart the GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

2.2. Open system with 802.1x



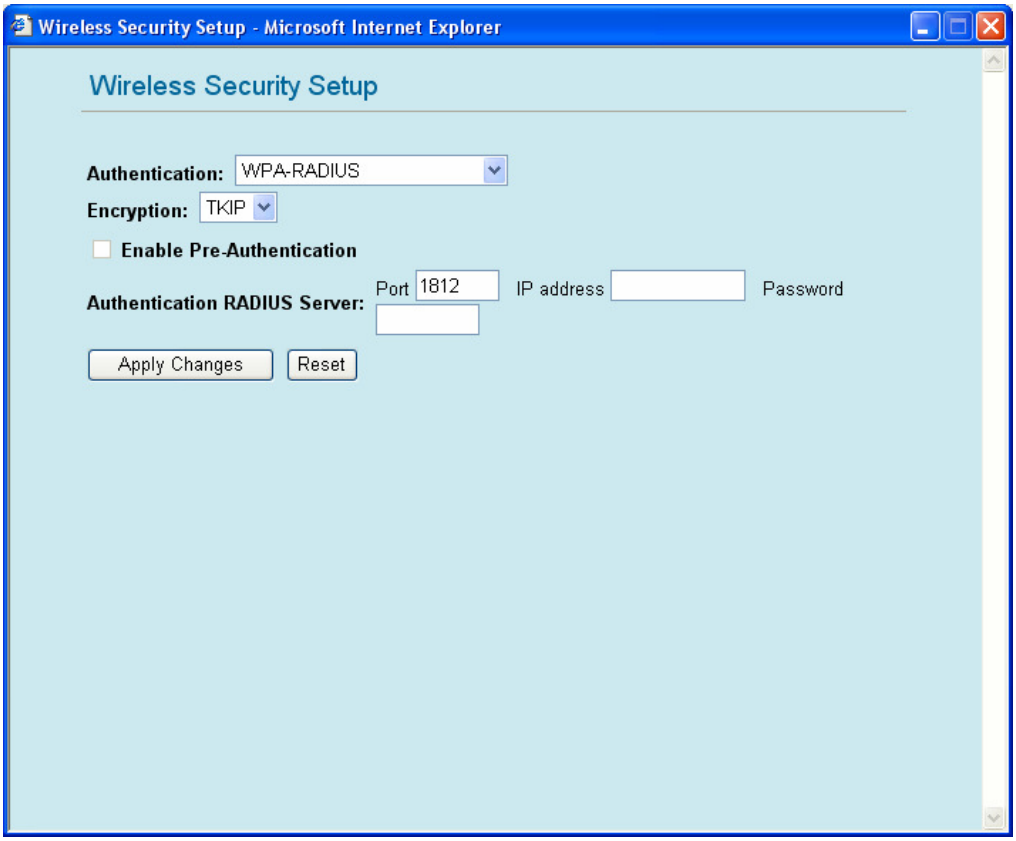
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

2.3. Shared Key


Wireless Security Setup - Microsoft Internet Explorer
Wireless Security Setup
Authentication: Shared Key
Encryption: WEP
Key Length: 64-bit
Key Format: Hex (10 characters)
Default Tx Key: Key 1
Encryption Key 1: **********
Encryption Key 2: **********
Encryption Key 3: **********
Encryption Key 4: **********
Note: When encryption WEP is selected, you must set WEP key value.
Apply Changes
Reset

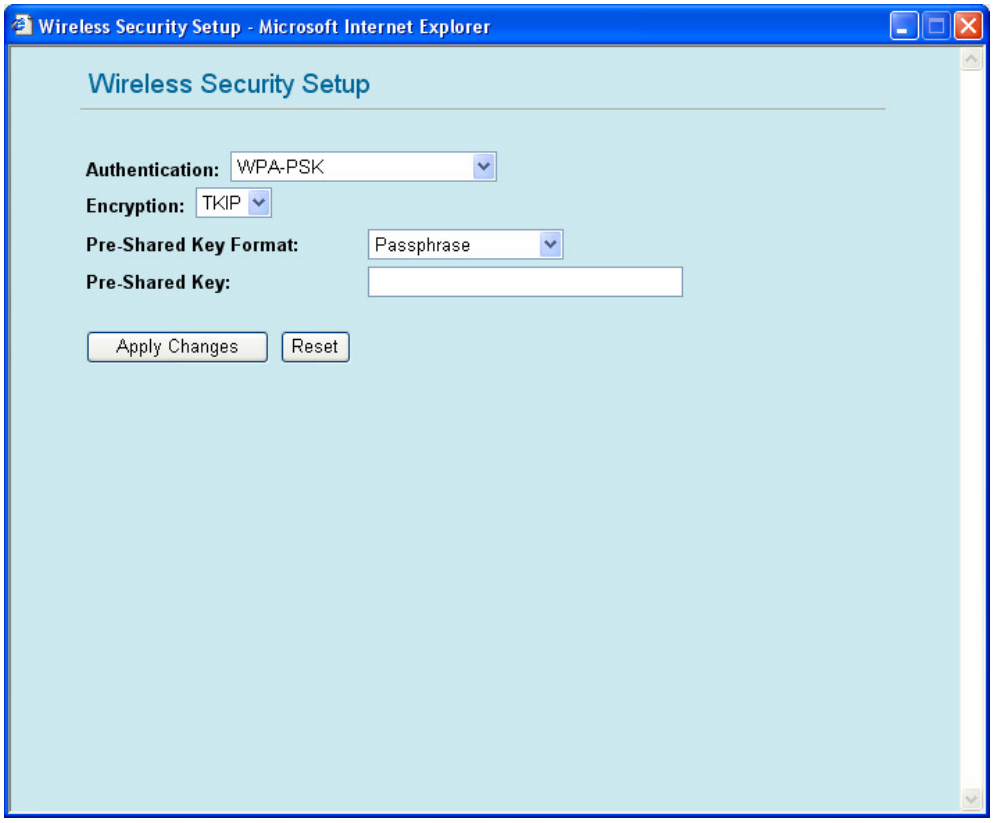
- **Key Length:** Here you can choose the length of your authentication key as **64-bit** or **128-bit.**
- **Key Format:** You can choose the format for your Encryption key here.
- **Default Tx Key:** You can enter four Encryption keys and select one of them as default Tx key. GW-MF54G2 can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4:** Only the Key select in the Default Tx Key will be used for wireless transmission encryption.
- **Apply Changes** : Click this button to save the settings and restart the GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

2.4. WPA-RADIUS



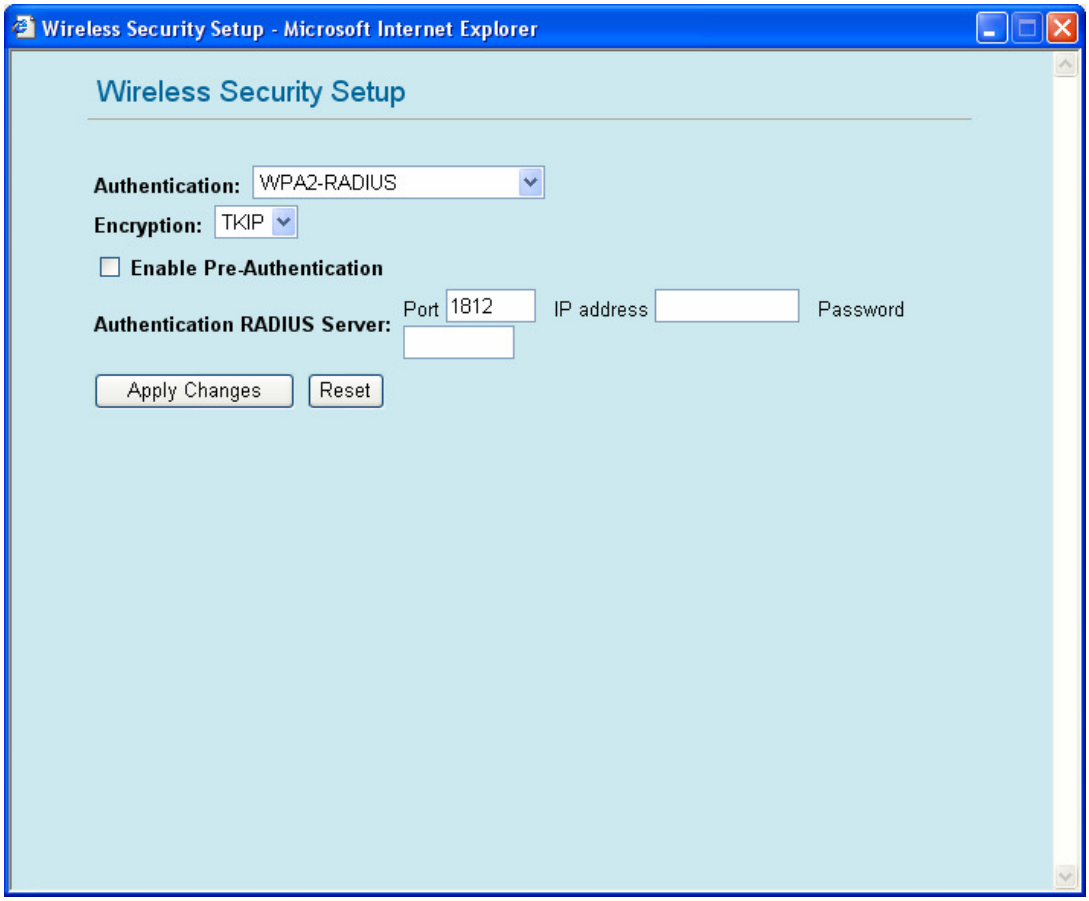
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

2.5. WPA-PSK



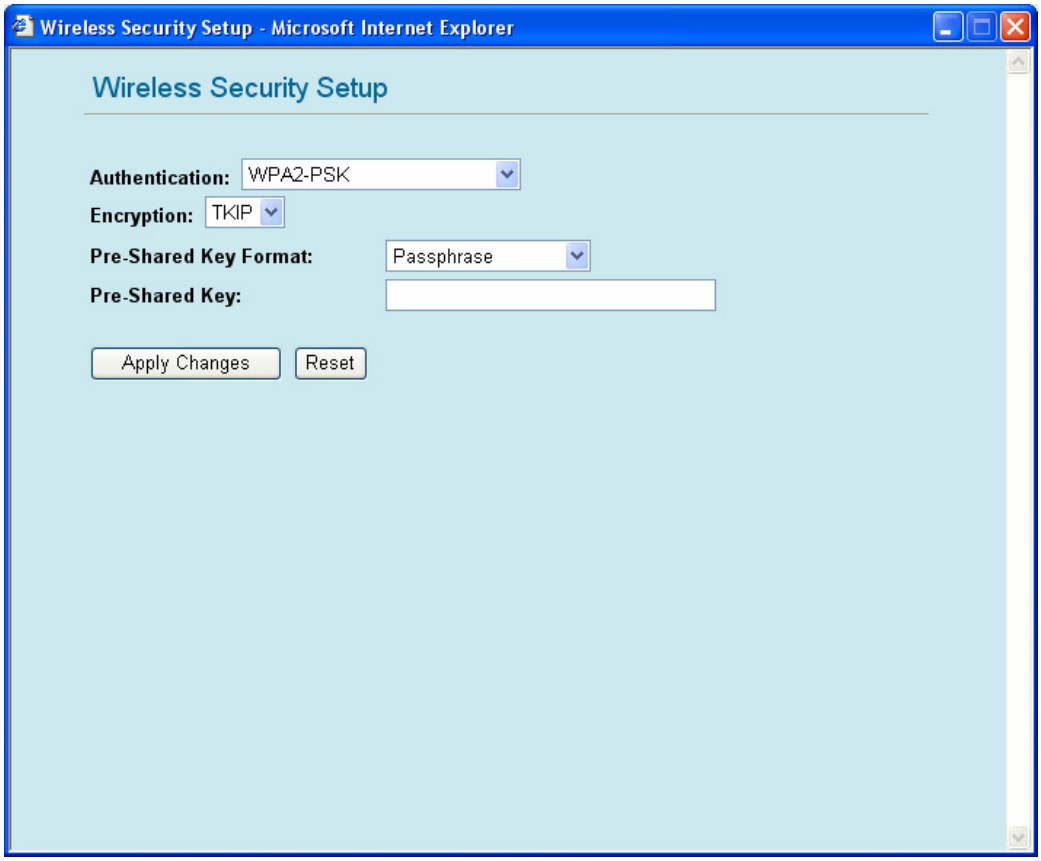
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Pre-shared Key Format:** Scroll down the menu to choose either "**Passphrase**" or "**Hex**".
- **Pre-shared Key:** Only computers sharing the same key with the AP can connect with it. The more random your pre-shared key is, the safer your system is.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

2.6. WPA2-RADIUS



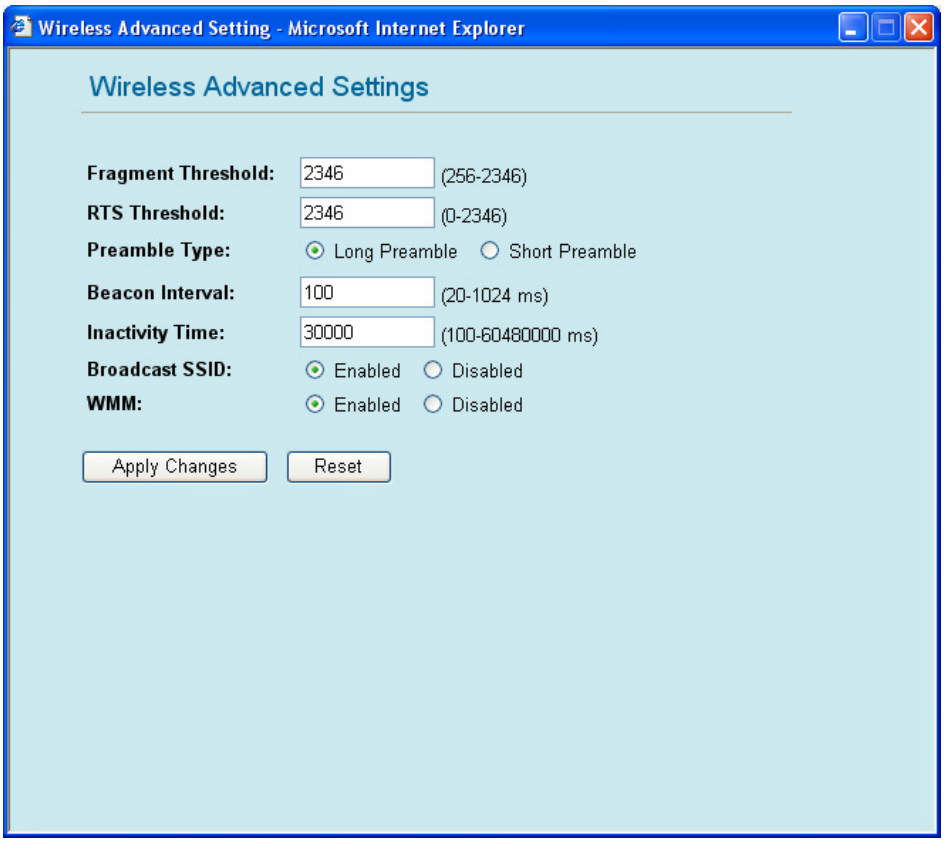
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

2.7. WPA2-PSK



- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Pre-shared Key Format:** Scroll down the menu to choose either "**Passphrase**" or "**Hex**".
- **Pre-shared Key:** Only computers sharing the same key with the AP can connect with it. The more random your pre-shared key is, the safer your system is.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

3. Wireless Advanced Settings

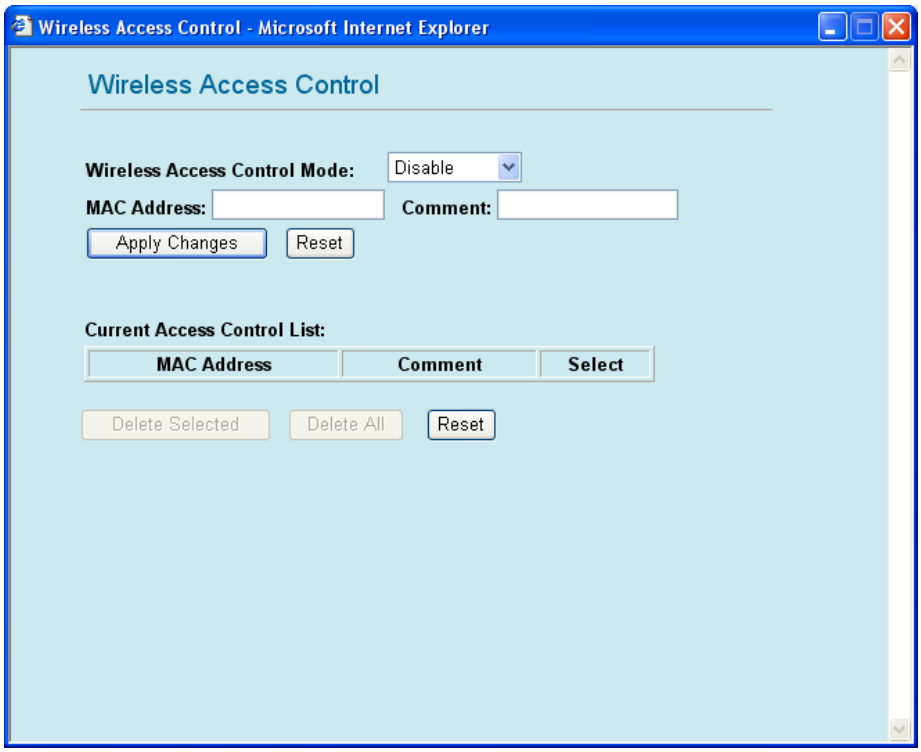

Wireless Advanced Setting - Microsoft Internet Explorer
Wireless Advanced Settings
Fragment Threshold: 2346 (256-2346)
RTS Threshold: 2346 (0-2346)
Preamble Type: Long Preamble Short Preamble
Beacon Interval: 100 (20-1024 ms)
Inactivity Time: 30000 (100-60480000 ms)
Broadcast SSID: Enabled Disabled
WMM: Enabled Disabled
Apply Changes
Reset

- **Fragment Threshold** : This value can define the maximum packet sized, so the packets bigger than this size will be segmented. If you set the lower value, and found there is higher packets error value, you can set the value higher, however, that may decrease the whole performance of GW-MF54G2. The default value is **2346**, and you can set a value between **256~2346**.
- **RTS Threshold** : Here you can define the minimum value of RTS (Request to Send) packets and prevent "**Hidden Nodes**" problems. Please enter a value between 0~2347, and when the packets are bigger than the RTS value the function will start to work.
- **Preamble Type** : A preamble is a signal used in wireless environment to synchronize the transmitting timing including synchronization and start frame delimiter. It can also define the length of CRC (cyclic redundancy check) blocking. There are two Preambles: **Long** and **Short**. When the traffic is heavier, the shorter preamble should be used.
- **Beacon Interval** : Beacon Interval is the amount of time between beacon transmissions. Before a station enters power save mode, the station needs the beacon interval to know when to start up again and receive the beacon.
- **Inactivity Time:** GW-MF54G2 will disconnect from the network if there are no network actions within the inactivity time.
- **Broadcast SSID:** If you check the check box of "**Disable**", SSID of GW-MF54G2 will not appear on the other PC's wireless network list. Therefore, the Wireless Router/AP can block the users without authentication.
- **WMM:** You can enable or disable this function. GW-MF54G2 supports **WMM(Wi-Fi Multimedia)** function. WMM is short for **W**i-Fi **M**ulti**m**edia. It is a standard created to define quality of service (QoS) in Wi-Fi networks. It is a precursor to the upcoming IEEE 802.11e WLAN QoS draft standard, which is meant to improve audio, video and voice applications transmitted over Wi-Fi.

WMM adds prioritized capabilities to Wi-Fi networks and optimizes their performance when multiple concurring applications, each with different latency and throughput requirements, compete for network resources.

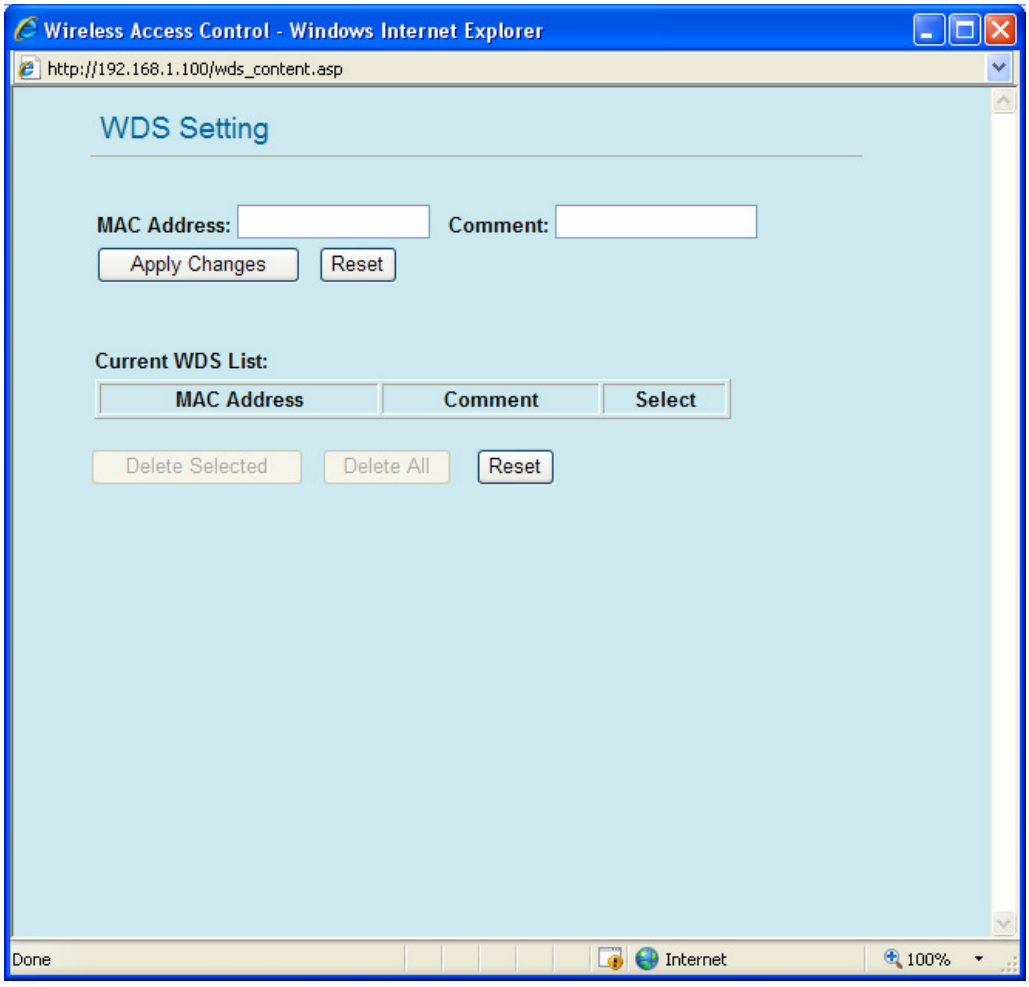
- **Apply Changes**：Click this button to save the settings and restart GW-MF54G2.
- **Reset**：If there is anything wrong with the settings you made, you can click “reset” to configure the page again.

4. Wireless Access Control



- **Wireless Access Control Mode:** Scroll down the list to choose which action you would like to take to any device with the specific MAC address. You can choose "**disable**" to disable this function, "**allow listed**" to allow only devices with the MAC addresses listed connecting to GW-MF54G2, or "**deny listed**" to deny any devices with the MAC addresses listed connecting to GW-MF54G2.
- **MAC Address:** Please enter the MAC address of the device here.
- **Comment:** You can add some comments, description or information about this MAC address.
- **Current Access Control List:** You can check the list of all the MAC address you added. If you would like to delete a MAC address from the list, please click the check box on the right side of that MAC address, and click "**Delete Selected**". If you want to delete all the MAC addresses on the list, please click "**Delete All**".
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

5. WDS Setting

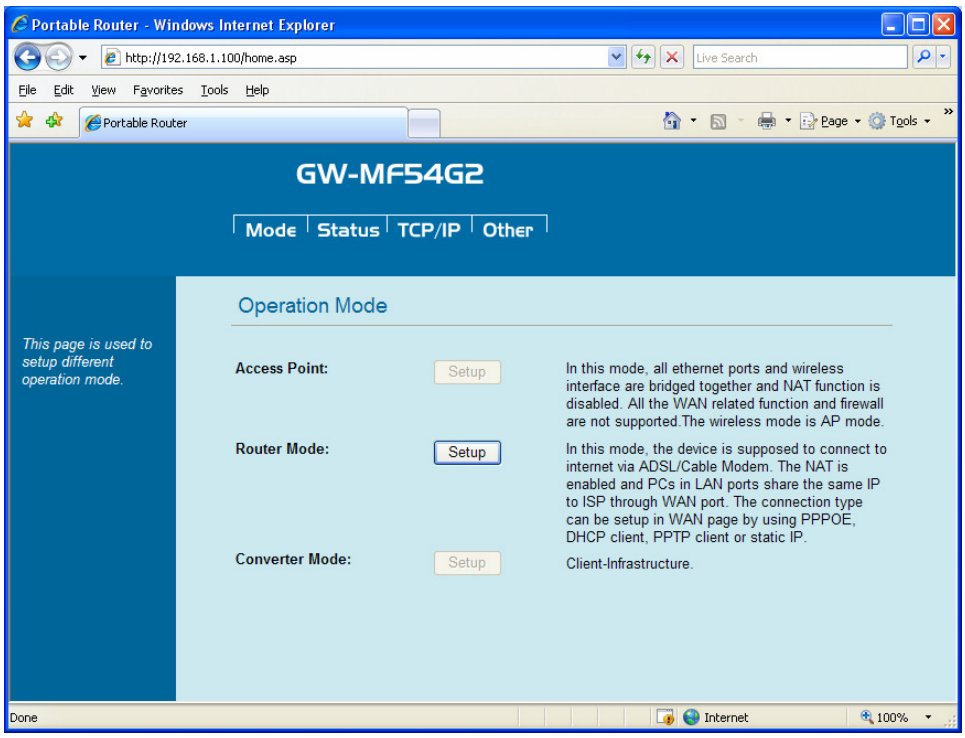


- **MAC Address:** Please enter the MAC address of the other GW-MF54G2 that you would like to link with WDS mode here.
- **Comment:** You can add some comments, description or information about this MAC address.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.
- **Current WDS List:** You can check the list of all the MAC address you added. If you would like to delete a MAC address from the list, please click the check box on the right side of that MAC address, and click "**Delete Selected**". If you want to delete all the MAC addresses on the list, please click "**Delete All**".

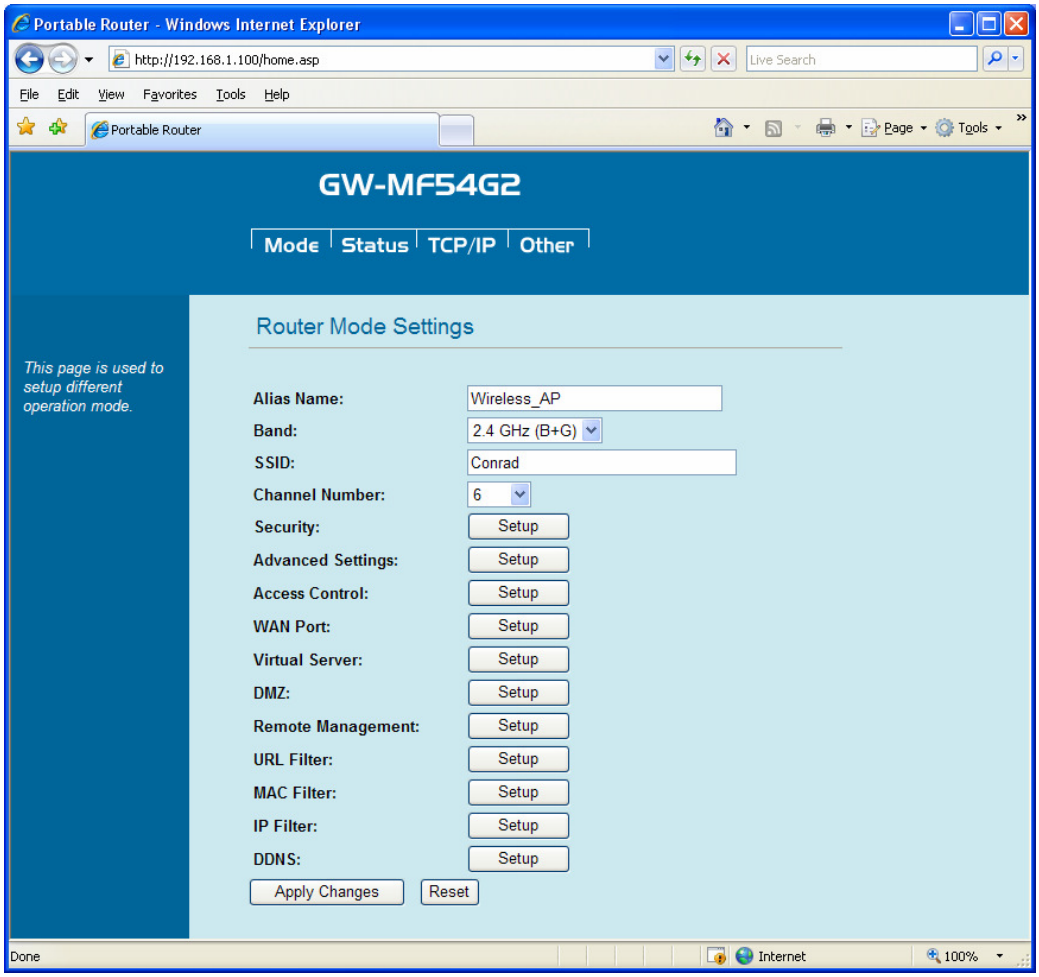
Chapter 4 Router Mode Configuration

Router

In **Router** mode, the Ethernet port of GW-MF54G2 is connected with your cable modem or the LAN port of your modem with a RJ-45 cable. Your computer will connect with GW-MF54G2 wirelessly and have Internet access.

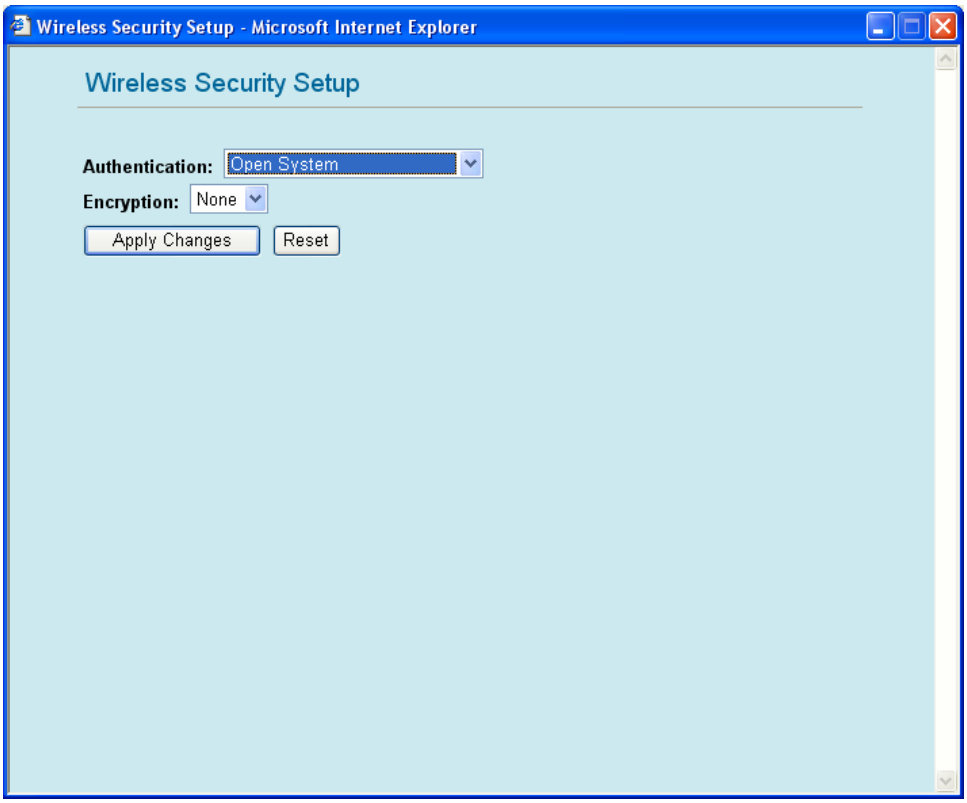

Portable Router - Windows Internet Explorer
http://192.168.1.100/home.asp
Live Search
File Edit View Favorites Tools Help
Portable Router
Page Tools
GW-MF54G2
Mode Status TCP/IP Other
This page is used to setup different operation mode.
Operation Mode
Access Point:
Setup
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.The wireless mode is AP mode.
Router Mode:
Setup
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Converter Mode:
Setup
Client-Infrastructure.
Done
Internet
100%

Please click "**Setup**" to start configuring the AP Mode, and click "**Apply**" to save the changes you made after finishing configuration.



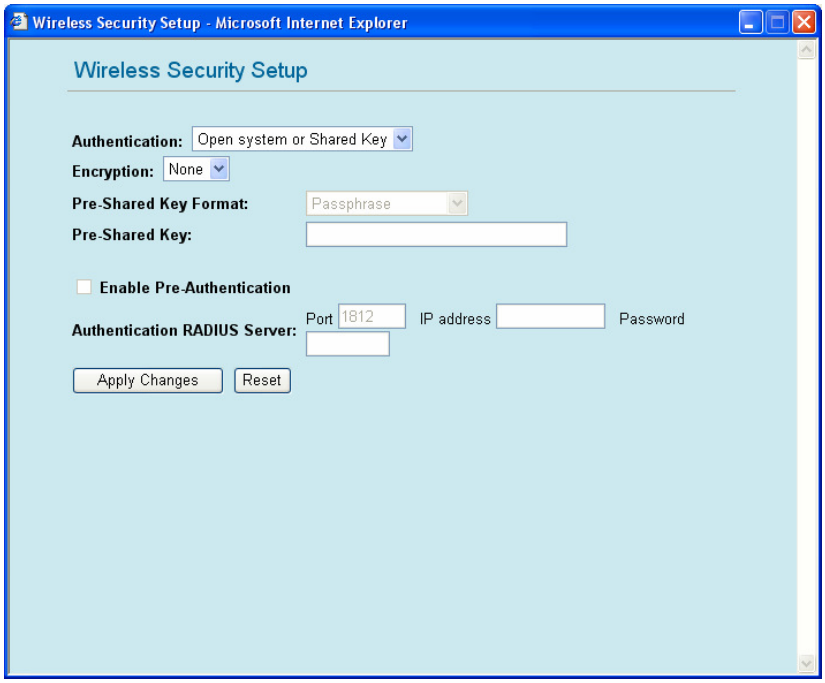
- **Alias Name:** Please enter a name for GW-MF54G2.
- **Band:** Scroll down the list to choose a band width. There are six kinds of modes: **2.4 GHz (B)**, **2.4 GHz (G)**, and **2.4 GHz (B+G)**.
- **SSID:** Every SSID is unique in the WLAN (SSID can be 16-digitASCII characters and case-sensitive). SSID can prevent two nearby WLAN from combining to be one. You can give GW-MF54G2 an SSID, and only whose SSID is the same with it can connect with it. The default SSID is **"CONRAD". Notice: When entering your SSID, please don't use special characters such as "@", "#", "$", "%", "^", "&", "*", "(", and ")". Using special characters or symbols could cause wireless connection difficulties.**
- **Channel Number:** Here shows the channels provided by the local wireless connection. The setting of the channels of the wireless network should be the same as the wireless APs.

1. Security

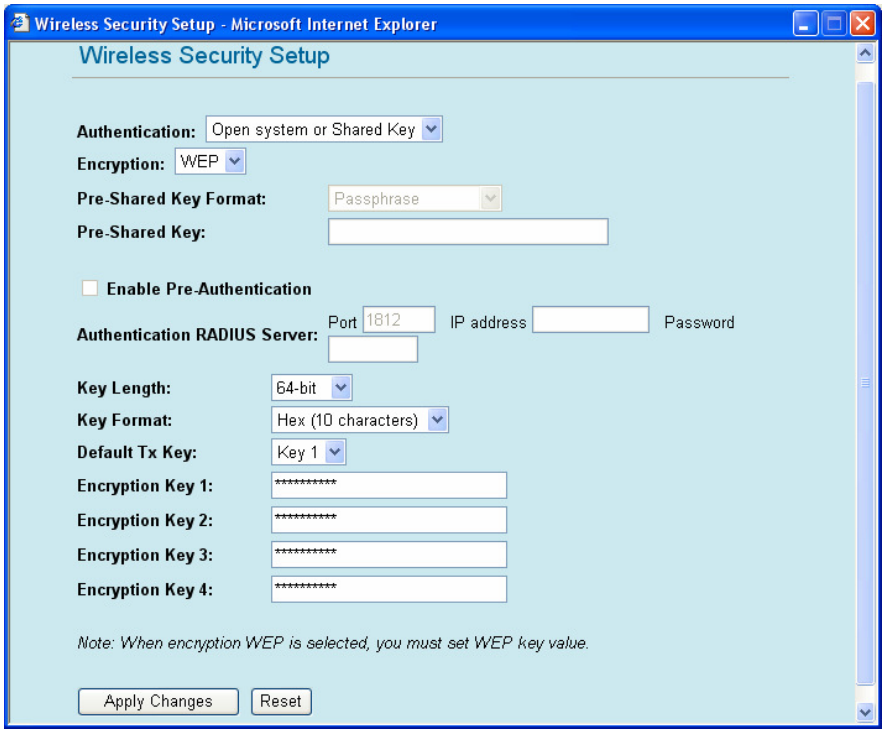


In this page, you can configure the security of your wireless network. Selecting different method can make different levels of security. However, no matter what kind of authentication or encryption you use to prevent data packets from being eavesdropped by people without authentication, it may cause decrease of the data throughput of the wireless connection.

1.1. Open system or Shared Key

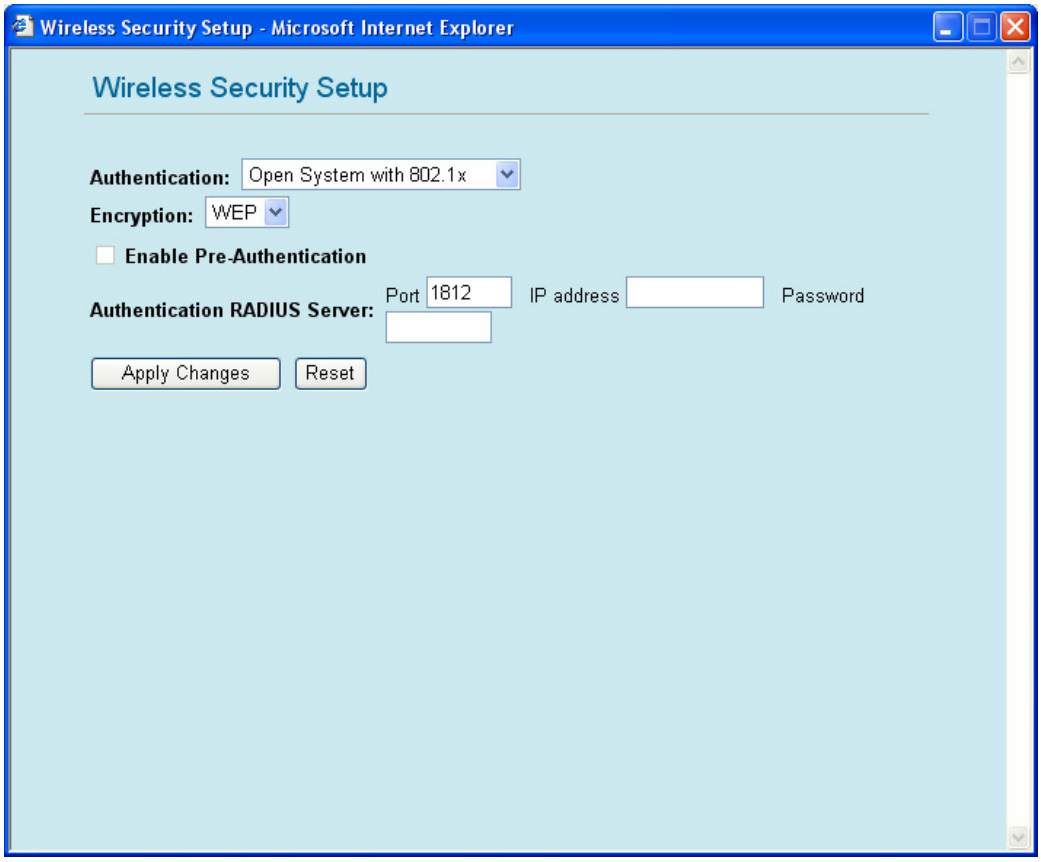


- **Authentication:** Scroll down the list and choose the authentication for GW-MF54G2.


Wireless Security Setup - Microsoft Internet Explorer
Wireless Security Setup
Authentication: Open system or Shared Key
Encryption: WEP
Pre-Shared Key Format: Passphrase
Pre-Shared Key:
Enable Pre-Authentication
Authentication RADIUS Server: Port 1812 IP address Password
Key Length: 64-bit
Key Format: Hex (10 characters)
Default Tx Key: Key 1
Encryption Key 1: **********
Encryption Key 2: **********
Encryption Key 3: **********
Encryption Key 4: **********
Note: When encryption WEP is selected, you must set WEP key value.
Apply Changes
Reset

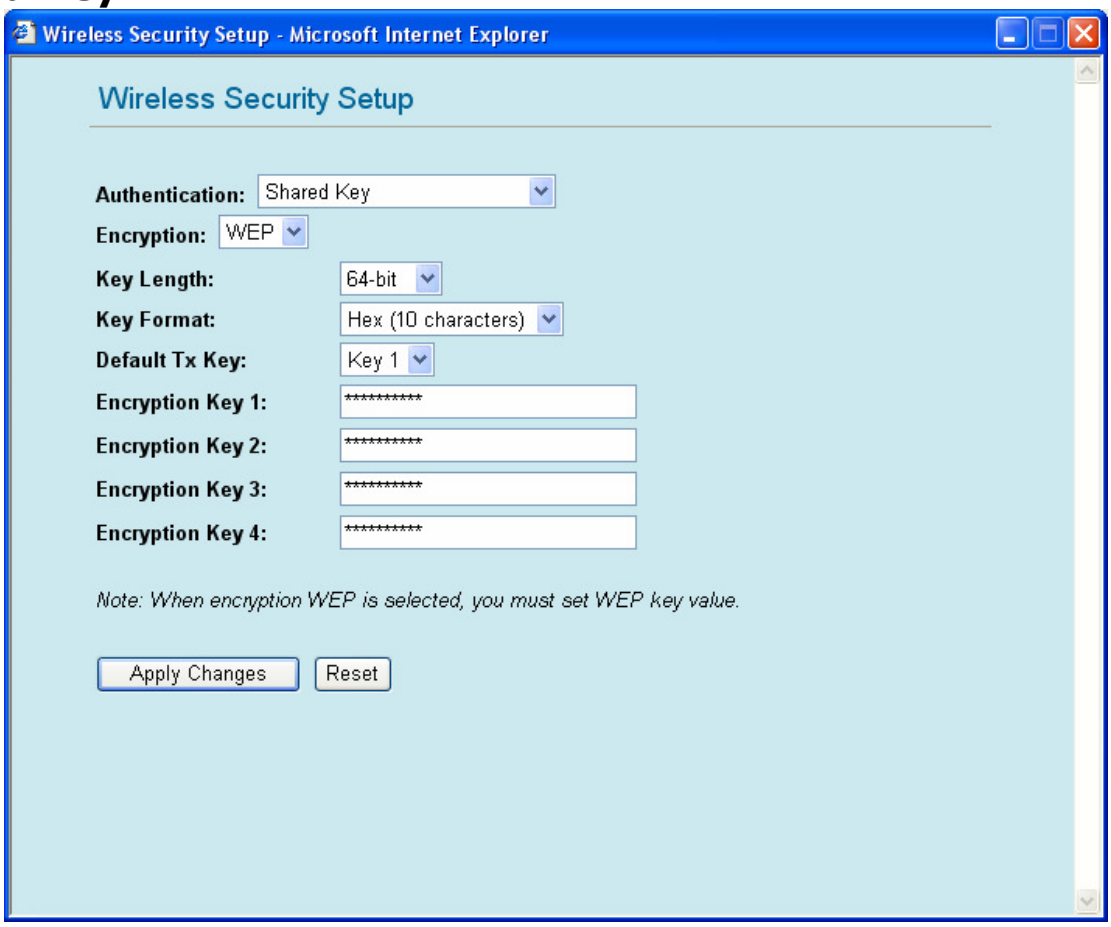
- **Key Length:** Here you can choose the length of your authentication key as **64-bit** or **128-bit.**
- **Key Format:** You can choose the format for your Encryption key here.
- **Default Tx Key:** You can enter four Encryption keys and select one of them as default Tx key. GW-MF54G2 can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4:** Only the Key select in the Default Tx Key will be used for wireless transmission encryption.
- **Apply Changes** : Click this button to save the settings and restart the GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

1.2. Open system with 802.1x



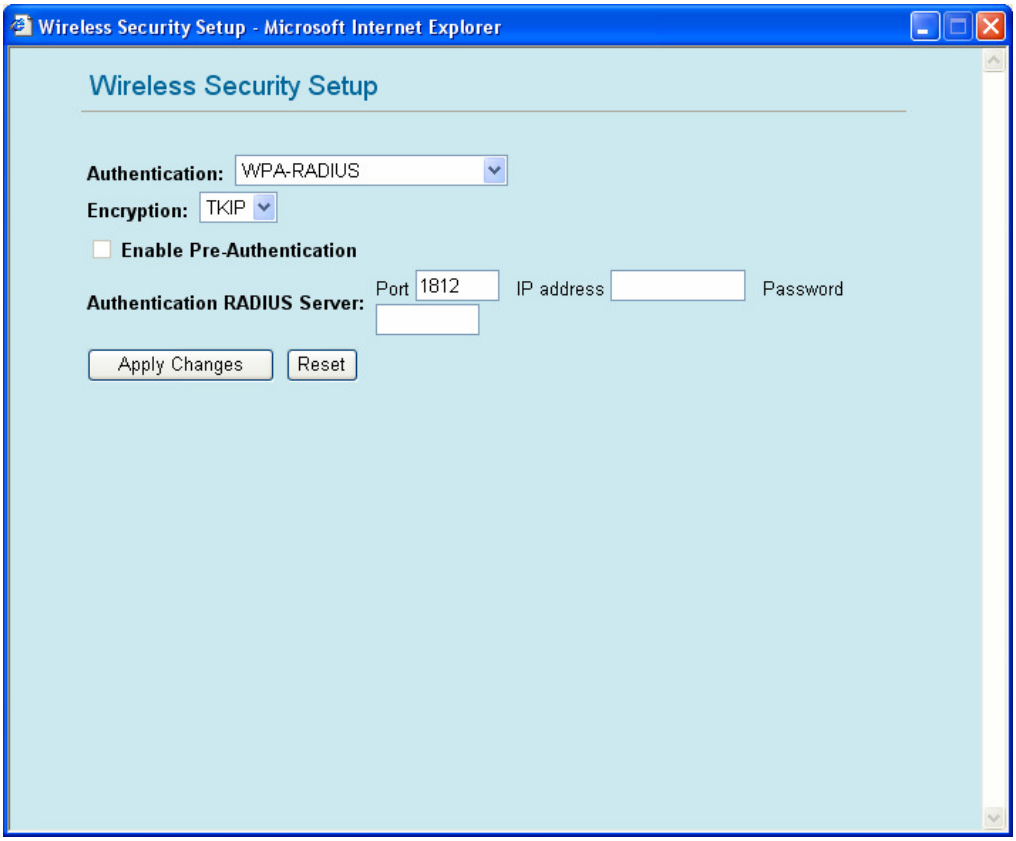
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

1.3. Shared Key


Wireless Security Setup - Microsoft Internet Explorer
Wireless Security Setup
Authentication: Shared Key
Encryption: WEP
Key Length: 64-bit
Key Format: Hex (10 characters)
Default Tx Key: Key 1
Encryption Key 1: **********
Encryption Key 2: **********
Encryption Key 3: **********
Encryption Key 4: **********
Note: When encryption WEP is selected, you must set WEP key value.
Apply Changes
Reset

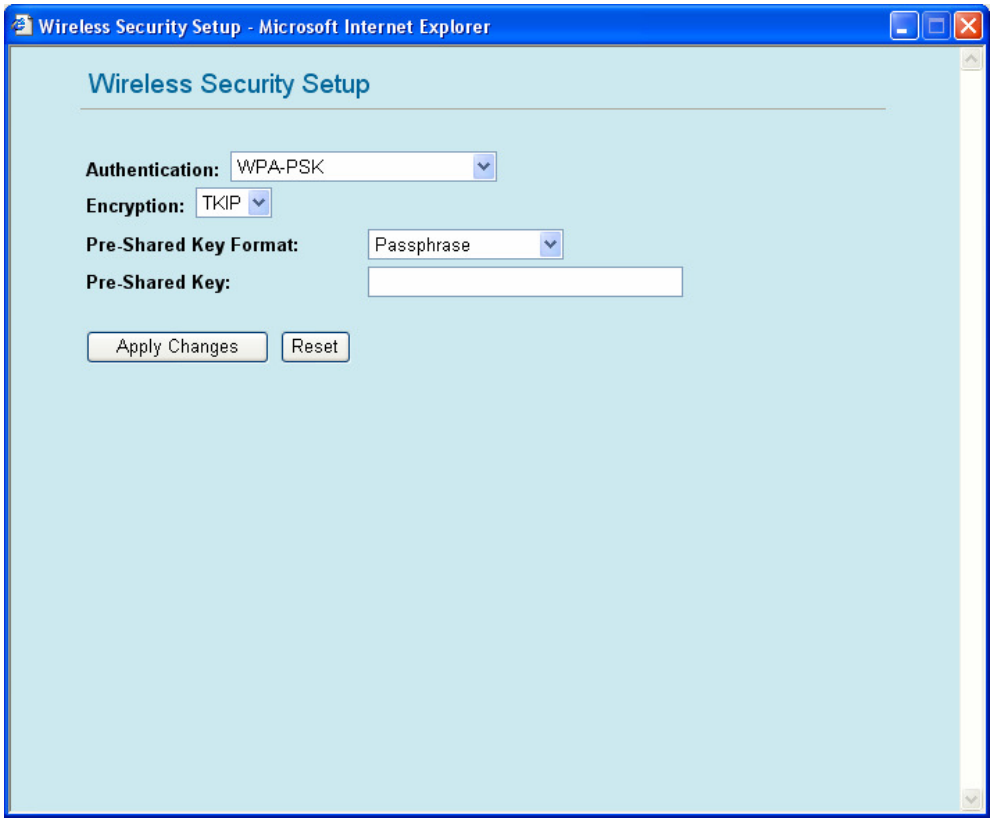
- **Key Length:** Here you can choose the length of your authentication key as **64-bit** or **128-bit.**
- **Key Format:** You can choose the format for your Encryption key here.
- **Default Tx Key:** You can enter four Encryption keys and select one of them as default Tx key. GW-MF54G2 can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4:** Only the Key select in the Default Tx Key will be used for wireless transmission encryption.
- **Apply Changes** : Click this button to save the settings and restart the GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

1.4. WPA-RADIUS



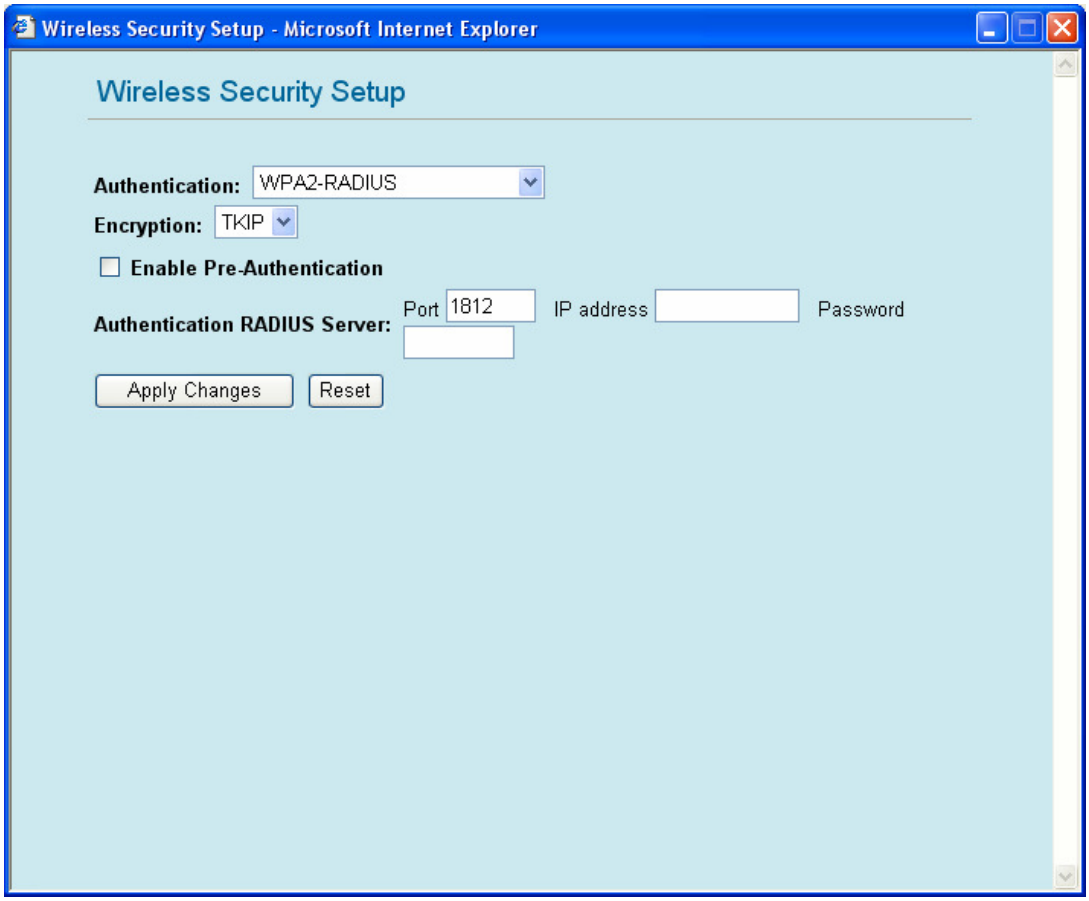
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

1.5. WPA-PSK



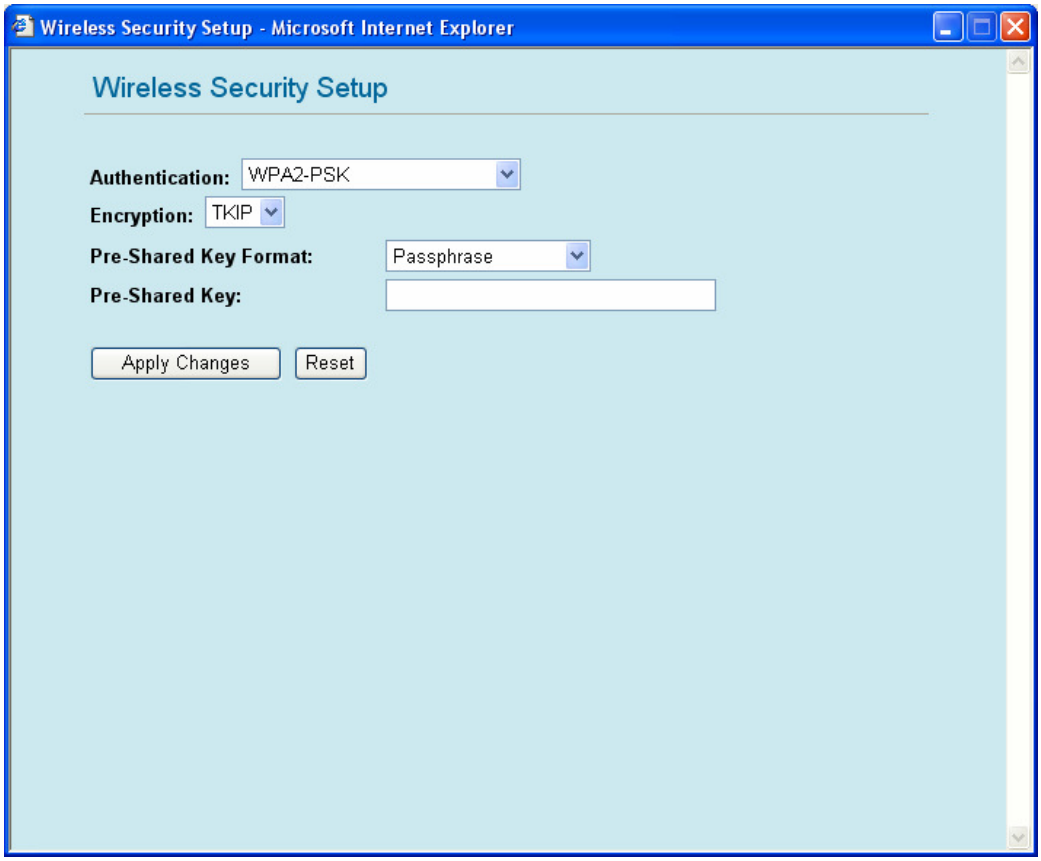
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Pre-shared Key Format:** Scroll down the menu to choose either "**Passphrase**" or "**Hex**".
- **Pre-shared Key:** Only computers sharing the same key with the AP can connect with it. The more random your pre-shared key is, the safer your system is.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

1.6. WPA2-RADIUS



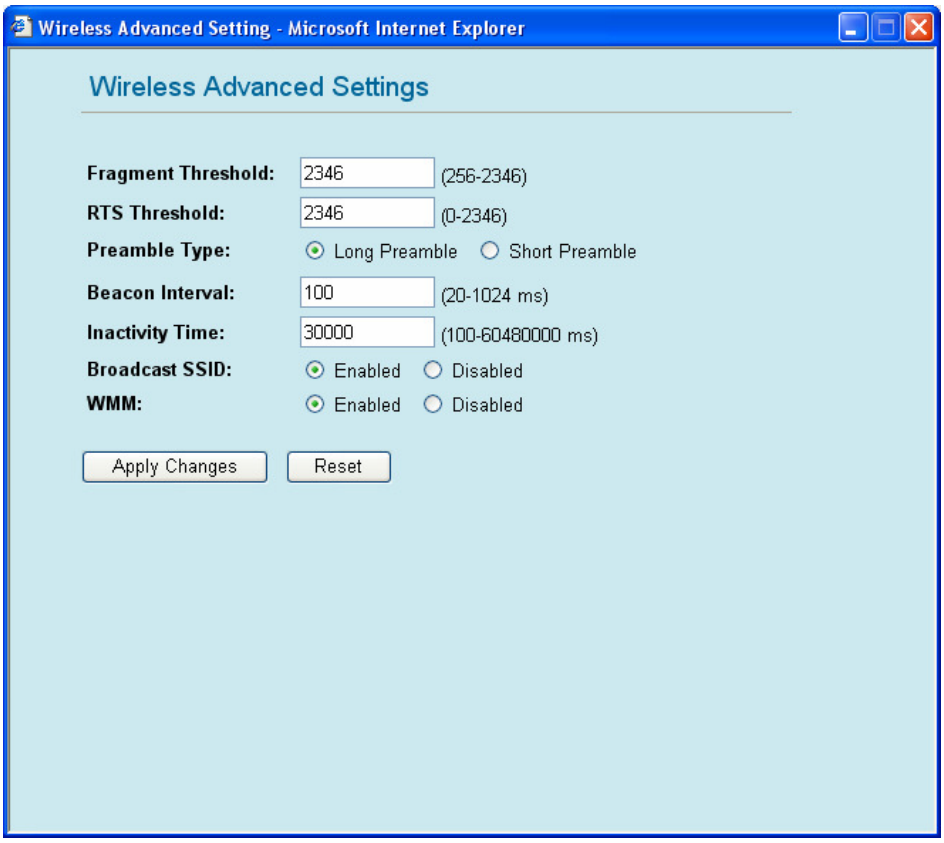
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

1.7. WPA2-PSK



- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Pre-shared Key Format:** Scroll down the menu to choose either "**Passphrase**" or "**Hex**".
- **Pre-shared Key:** Only computers sharing the same key with the AP can connect with it. The more random your pre-shared key is, the safer your system is.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

2. Wireless Advanced Settings

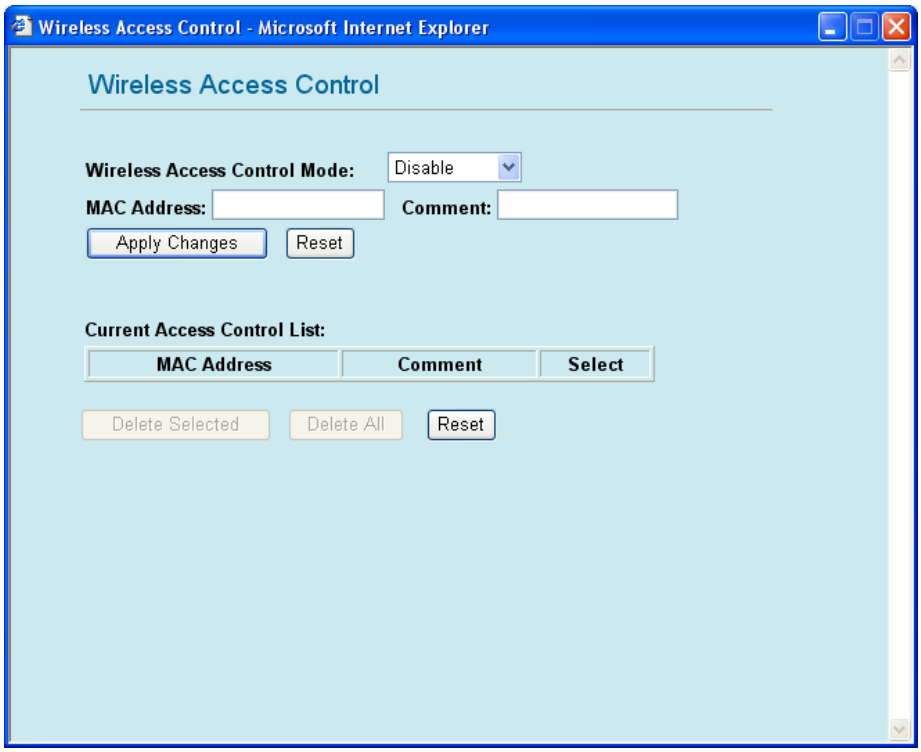

Wireless Advanced Setting - Microsoft Internet Explorer
Wireless Advanced Settings
Fragment Threshold: 2346 (256-2346)
RTS Threshold: 2346 (0-2346)
Preamble Type: Long Preamble Short Preamble
Beacon Interval: 100 (20-1024 ms)
Inactivity Time: 30000 (100-60480000 ms)
Broadcast SSID: Enabled Disabled
WMM: Enabled Disabled
Apply Changes
Reset

- **Fragment Threshold** : This value can define the maximum packet sized, so the packets bigger than this size will be segmented. If you set the lower value, and found there is higher packets error value, you can set the value higher, however, that may decrease the whole performance of GW-MF54G2. The default value is **2346**, and you can set a value between **256~2346**.
- **RTS Threshold** : Here you can define the minimum value of RTS (Request to Send) packets and prevent "**Hidden Nodes**" problems. Please enter a value between 0~2347, and when the packets are bigger than the RTS value the function will start to work.
- **Preamble Type** : A preamble is a signal used in wireless environment to synchronize the transmitting timing including synchronization and start frame delimiter. It can also define the length of CRC (cyclic redundancy check) blocking. There are two Preambles: **Long** and **Short**. When the traffic is heavier, the shorter preamble should be used.
- **Beacon Interval** : Beacon Interval is the amount of time between beacon transmissions. Before a station enters power save mode, the station needs the beacon interval to know when to start up again and receive the beacon.
- **Inactivity Time:** GW-MF54G2 will disconnect from the network if there are no network actions within the inactivity time.
- **Broadcast SSID:** If you check the check box of "**Disable**", SSID of GW-MF54G2 will not appear on the other PC's wireless network list. Therefore, the Wireless Router/AP can block the users without authentication.
- **WMM:** You can enable or disable this function. GW-MF54G2 supports **WMM(Wi-Fi Multimedia)** function. WMM is short for **W**i-Fi **M**ulti**m**edia. It is a standard created to define quality of service (QoS) in Wi-Fi networks. It is a precursor to the upcoming IEEE 802.11e WLAN QoS draft standard, which is meant to improve audio, video and voice applications transmitted over Wi-Fi.

WMM adds prioritized capabilities to Wi-Fi networks and optimizes their performance when multiple concurring applications, each with different latency and throughput requirements, compete for network resources.

- **Apply Changes**：Click this button to save the settings and restart GW-MF54G2.
- **Reset**：If there is anything wrong with the settings you made, you can click “reset” to configure the page again.

3. Wireless Access Control



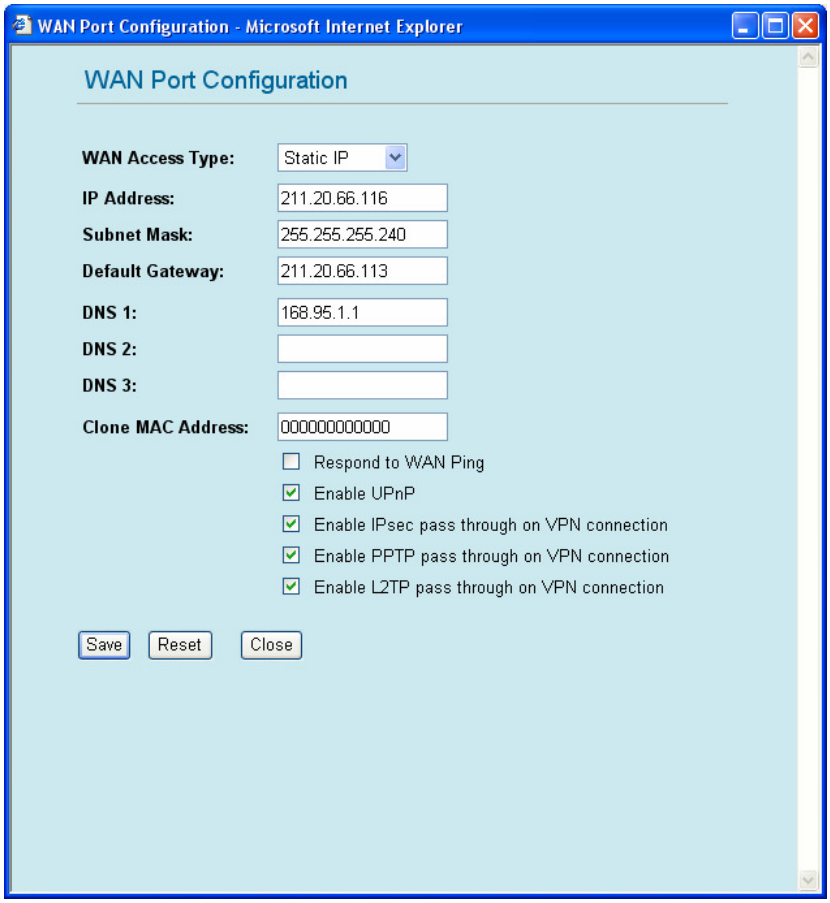
- **Wireless Access Control Mode:** Scroll down the list to choose which action you would like to take to any device with the specific MAC address. You can choose "**disable**" to disable this function, "**allow listed**" to allow only devices with the MAC addresses listed connecting to GW-MF54G2, or "**deny listed**" to deny any devices with the MAC addresses listed connecting to GW-MF54G2.
- **MAC Address:** Please enter the MAC address of the device here.
- **Comment:** You can add some comments, description or information about this MAC address.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.
- **Current Access Control List:** You can check the list of all the MAC address you added. If you would like to delete a MAC address from the list, please click the check box on the right side of that MAC address, and click "**Delete Selected**". If you want to delete all the MAC addresses on the list, please click "**Delete All**".
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

4. WAN Port

WAN Port： Click the "**Setup**" button to setup your WAN connection. GW-MF54G2 supports the following connection for Internet access: **Static IP**, **DHCP**, **PPPoE**, and **PPTP**. Please click the select menu, choose one of the connection types from the menu, and setup the configurations as the following steps.

4.1. Static IP

If you are connecting to the Internet via **Static IP**, please configure GW-54MFG2 as the following steps.

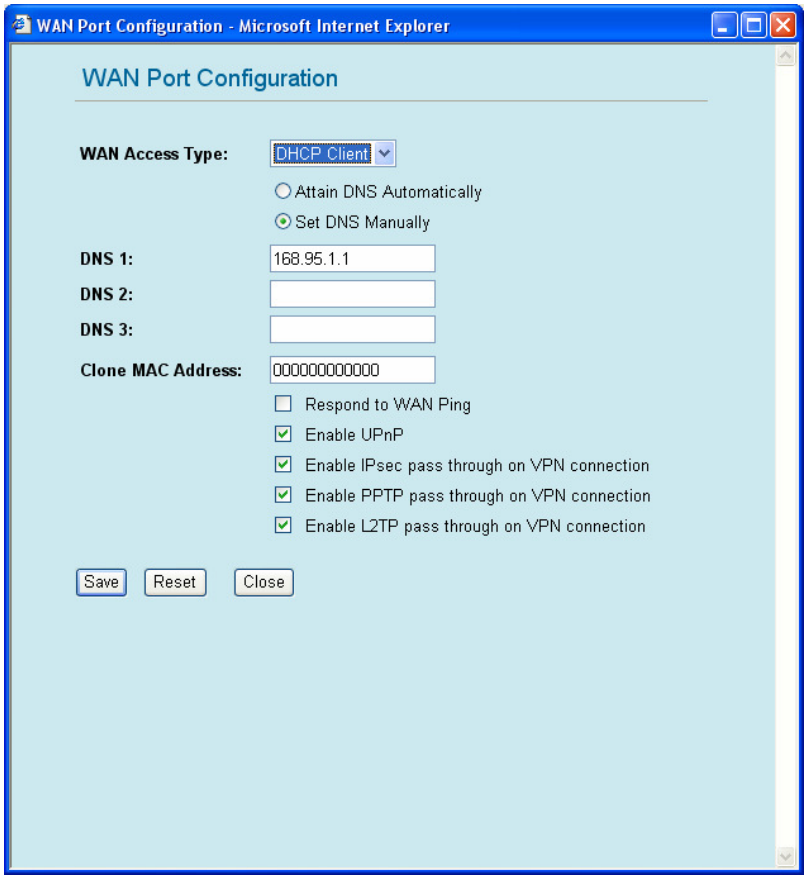


- **IP Address**：Enter the IP address provided by your ISP.
- **Subnet Mask**：Enter the Subnet Mask address provided by your ISP.
- **Default Gateway**：Enter the Gateway address provided by your ISP.
- **DNS Server 1/2/3**：Enter the DNS Server's address provided by your ISP. You can enter the second and third DNS address as well. However, this is option and you may leave it blank.
- **Clone MAC Address**: The default MAC address of GW-MF54G2 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
- **Respond to WAN Ping**: Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
- **Enable UPnP:** If your operating system supports this function, you may check to enable it.
- **Enable IPsec pass through on VPN connection:** Click the check box to enable the encryption function.

- **Enable PPTP pass through on VPN connection:** Click the check box to enable the encryption function.
- **Enable L2TP pass through on VPN connection:** Click the check box to enable the encryption function.
- **Save**：Click this button to save the settings.
- **Reset**：If there is anything wrong with the settings you made, you can click "**Reset**" to configure the page again.
- **Close**: You may click the "**Close**" button to close the configuration window, all the changes and configurations you made will not be saved.

4.2. DHCP

If you are connecting to the Internet via **DHCP**, please configure GW-54MFG2 as the following steps.

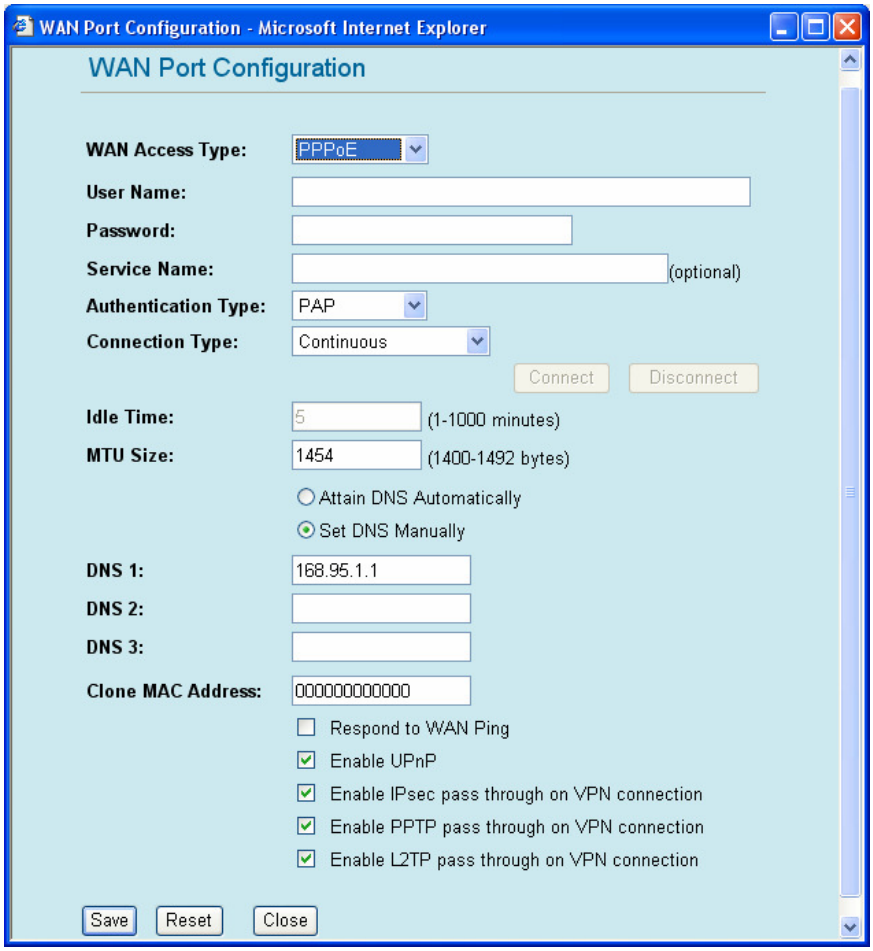


- **Attain DNS Automatically/Set DNS Manually:** Click "**Attain DNS Automatically**", and GW-MF54G2 will attain DNS automatically. Click "**Set DNS Manually**", and set DNS in the fields down below manually.
- **DNS Server 1/2/3** : Enter the DNS Server's address provided by your ISP. You can enter the second and third DNS address as well. However, this is option and you may leave it blank.
- **Clone MAC Address**: The default MAC address of GW-MF54G2 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
- **Respond to WAN Ping**: Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
- **Enable UPnP:** If your operating system supports this function, you may check to enable it.
- **Enable IPsec pass through on VPN connection:** Click the check box to enable the encryption function.
- **Enable PPTP pass through on VPN connection:** Click the check box to enable the encryption function.
- **Enable L2TP pass through on VPN connection:** Click the check box to enable the encryption function.
- **Apply** : Click this button to save the settings.

- **Reset**：If there is anything wrong with the settings you made, you can click "**Reset**" to configure the page again.
- **Close**: You may click the "**Close**" button to close the configuration window, all the changes and configurations you made will not be saved.

4.3. PPPoE

If you are connecting to the Internet via **PPPoE**, please configure GW-54MFG2 as the following steps.



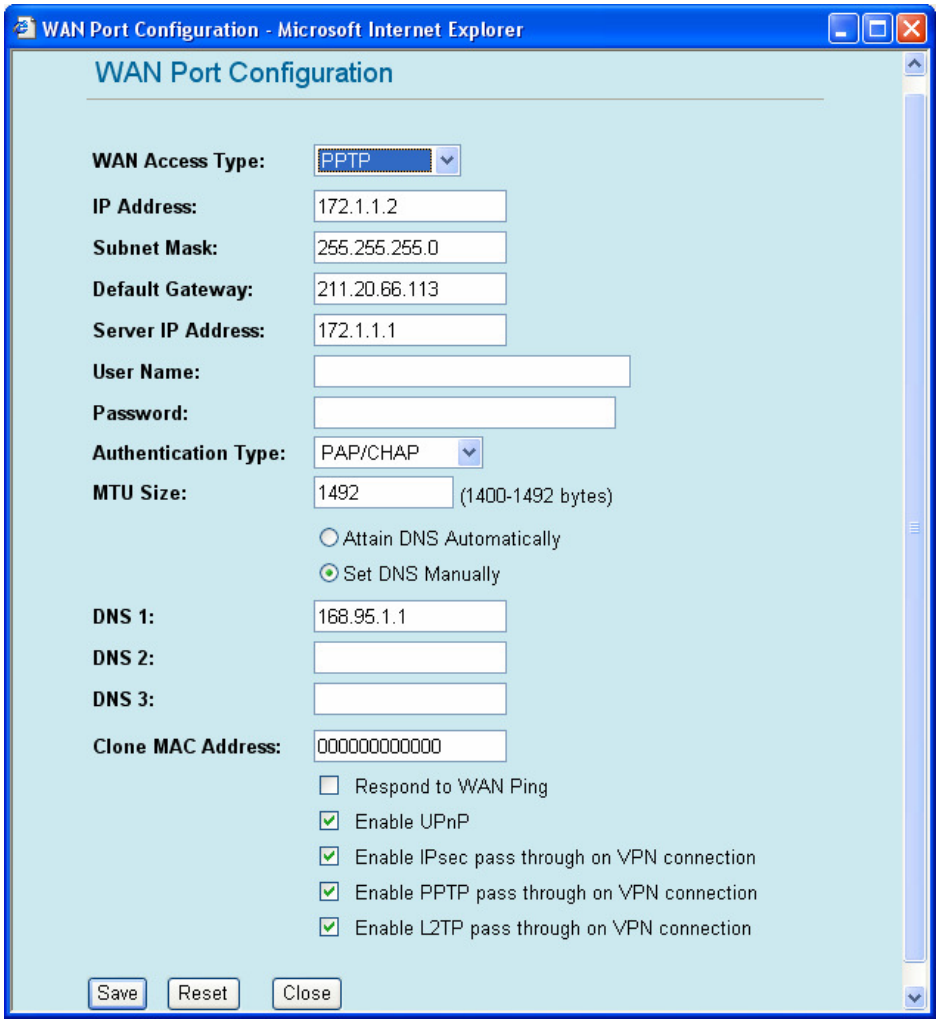
- **USER Name**：Enter the User Name provided by your ISP. (The User Name must be alphanumeric characters and case sensitive.)
- **Password**：Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Service Name**：Enter the service name of your ISP. This is optional.
- **Auth Type**：You may choose **PAP**, **CHAP** or **MSCHAP-v1/ MSCHAP-v2** authentication to enhance the security of data transmission.
    - **PAP** – Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
    - **CHAP** – Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
    - **MSCHAP-v1/ MSCHAP-v2:** MSCHAP-v1/ MSCHAP-v2 are the Microsoft's version of CHAP.
- **Connection Type:** You can choose three different types of connection type: "**Continuous**", "**Connect on Demand**" or "**Manual**". If you choose "**Continuous**", system will connect to the Internet whenever the Internet connection is down. If you choose "**Connect on Demand**", the system will connect to the Internet whenever it's necessary. If you choose "**Manual**", the system

will not connect to the Internet unless you click the "**Connect**" button down below.

- **Idle Time:** Idle Time means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately.
- **MTU Size:** MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Attain DNS Automatically/Set DNS Manually:** Click "**Attain DNS Automatically**", and GW-MF54G2 will attain DNS automatically. Click "**Set DNS Manually**", and set DNS in the fields down below manually.
  - **DNS Server 1/2/3**：Enter the DNS Server's address provided by your ISP. You can enter the second and third DNS address as well. However, this is option and you may leave it blank.
  - **Clone MAC Address**: The default MAC address of GW-MF54G2 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
  - **Respond to WAN Ping**: Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
  - **Enable UPnP:** If your operating system supports this function, you may check to enable it.
  - **Enable IPsec pass through on VPN connection:** Click the check box to enable the encryption function.
  - **Enable PPTP pass through on VPN connection:** Click the check box to enable the encryption function.
  - **Enable L2TP pass through on VPN connection:** Click the check box to enable the encryption function.
  - **Save**：Click this button to save the settings.
  - **Reset**：If there is anything wrong with the settings you made, you can click "**Reset**" to configure the page again.
  - **Close**: You may click the "**Close**" button to close the configuration window, all the changes and configurations you made will not be saved.

4.4. PPTP

If you are connecting to the Internet via **PPTP**, please configure GW-54MFG2 as the following steps.



- **IP Address** : Enter the IP address provided by your ISP.
- **Subnet Mask** : Enter the Subnet Mask address provided by your ISP.
- **Default Gateway** : Enter the Gateway address provided by your ISP.
- **Server IP Address**: Enter the Server IP address provided by your ISP.

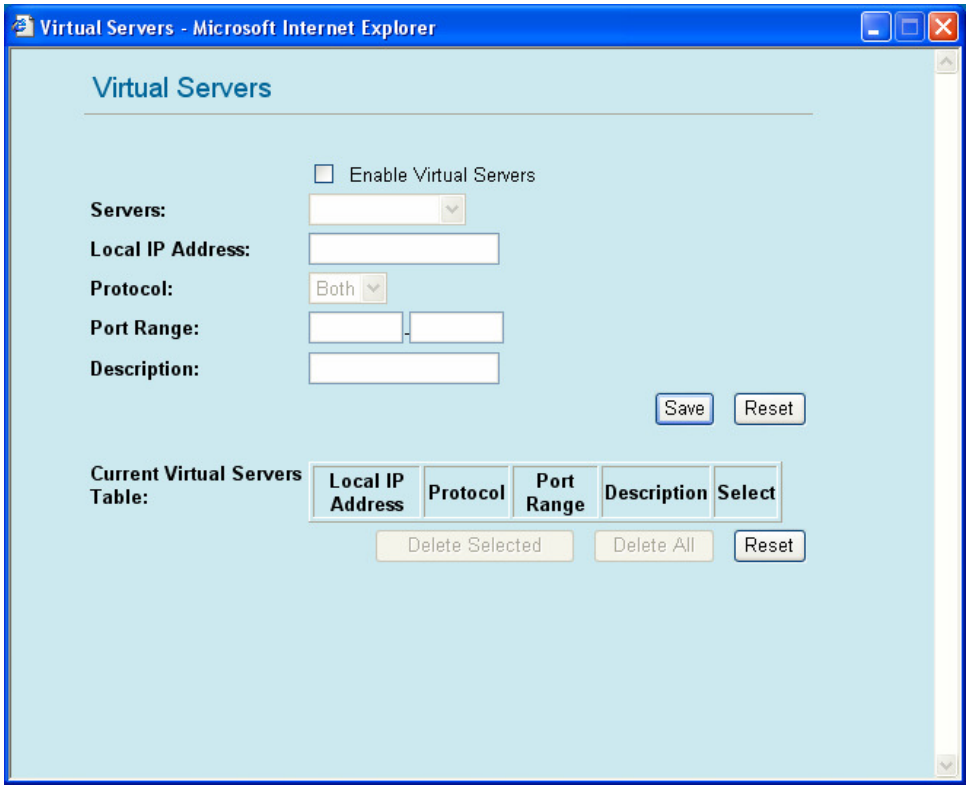
- **USER Name** : Enter the User Name provided by your ISP. (The User Name must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Auth Type**: You may choose **PAP**, **CHAP** or **MSCHAP-v1/ MSCHAP-v2** authentication to enhance the security of data transmission.
    - **PAP** – Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
    - **CHAP** – Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
    - **MSCHAP-v1/ MSCHAP-v2:** MSCHAP-v1/ MSCHAP-v2 are the Microsoft's version of

CHAP.

- **MTU Size:** MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Attain DNS Automatically/Set DNS Manually:** Click "**Attain DNS Automatically**", and GW-MF54G2 will attain DNS automatically. Click "**Set DNS Manually**", and set DNS in the fields down below manually.
  - **DNS Server 1/2/3**：Enter the DNS Server's address provided by your ISP. You can enter the second and third DNS address as well. However, this is option and you may leave it blank.
  - **Clone MAC Address**: The default MAC address of GW-MF54G2 is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
  - **Respond to WAN Ping**: Ping is a common and useful tool to know the connection status of a specified remote network device, but some malicious intruder will try to fill your network bandwidth with a lot of PING request data packet, to make your internet connection become very slow, even unusable. Check this box and the router will reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
  - **Enable UPnP:** If your operating system supports this function, you may check to enable it.
  - **Enable IPsec pass through on VPN connection:** Click the check box to enable the encryption function.
  - **Enable PPTP pass through on VPN connection:** Click the check box to enable the encryption function.
  - **Enable L2TP pass through on VPN connection:** Click the check box to enable the encryption function.
  - **Save**：Click this button to save the settings.
  - **Reset**：If there is anything wrong with the settings you made, you can click "**Reset**" to configure the page again.
  - **Close**: You may click the "**Close**" button to close the configuration window, all the changes and configurations you made will not be saved.

5. Virtual Server

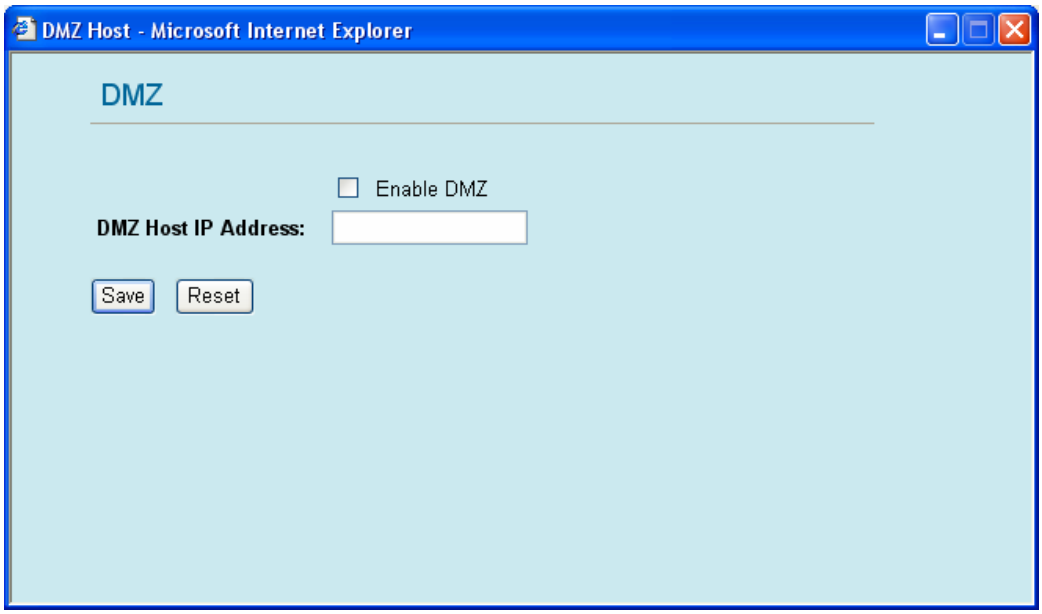
GW-MF54G2 can enable Virtual Server function, and remote hosts can use public IP address to connect with the Internet and FTP and then enter the LAN, but all the PCs on the LAN will not be seen from the outside. Virtual Server function can let users set a local server with specific port number which stands for the specific port, such as Web (80), FTP (21), and Telnet (23). When GW-MF54G2 receives an incoming access request to the specific port, it will forward the request to the corresponding internal server which means the external request for accessing a specific port will be reassigned to a different port.



- **Enable Virtual Server:** Click this check box to enable the virtual server function.
- **Local IP Address:** Please enter the local static IP address that provides the service you chose.
- **Protocol:** You can set the protocol of the virtual server to be **TCP**, **UDP**, or **BOTH**.
- **Port Range**：Enter the port number that you want to set for virtual server port which might be different from the external port number. It can be a single port number or a range of ports. When receiving an incoming packet corresponding with the specific port number, the packet will be transferred to the appointed port.
- **Comment:** You can add some comments, description or information about this MAC address.
- **Save**：Click this button to save the settings and restart GW-MF54G2.
- **Reset**：If there is anything wrong with the settings you made, you can click "reset" to configure the page again.
- **Current Access Control List:** You can check the list of all the virtual servers you added. If you would like to delete a virtual server from the list, please click the check box on the right side of that virtual server, and click "**Delete Selected**". If you want to delete all the virtual servers on the list, please click "**Delete All**".
  - **Apply Changes**：Click this button to save the settings and restart GW-MF54G2.
  - **Reset**：If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

6. DMZ

If your computer cannot use Internet applications or cannot provide services to remote users when applying GW-MF54G2 at the same time, you can let the host which wants to access to the Internet using DMZ function.

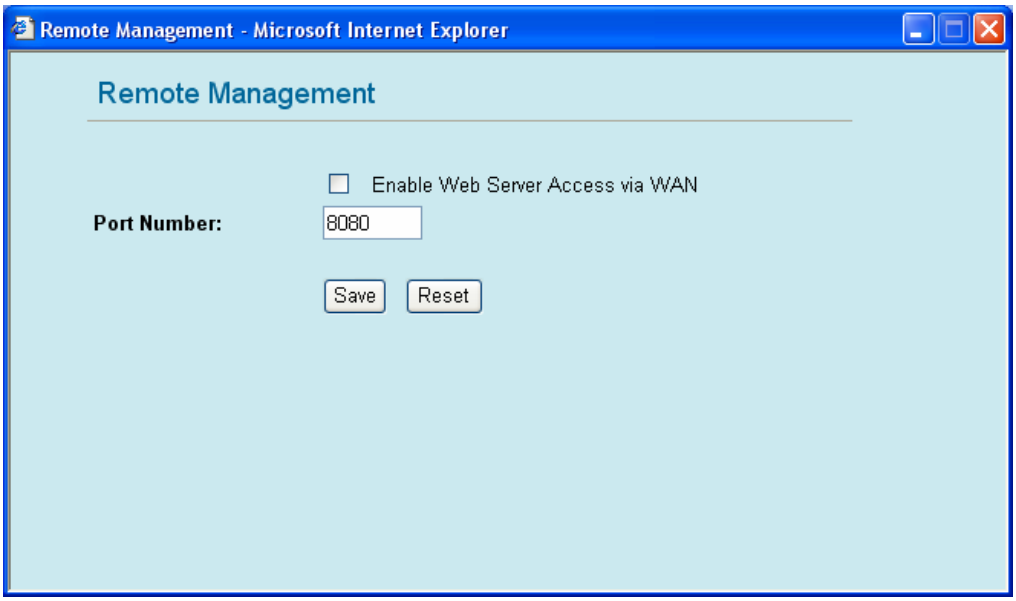


- **Enable DMZ**: Click the check box to enable DMZ function.
- **DMZ Host IP Address**: Enter the host IP address of your DMZ server here.
- **Save** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

	Adding a client host to DMZ might expose it to a variety of danger such as virus or worm attacks because of unrestricted Internet access; therefore, only use this option as the last means. Besides, before using DMZ function, you should update the up-to-date settings of security system and virus signatures on the host.

7. Remote Management

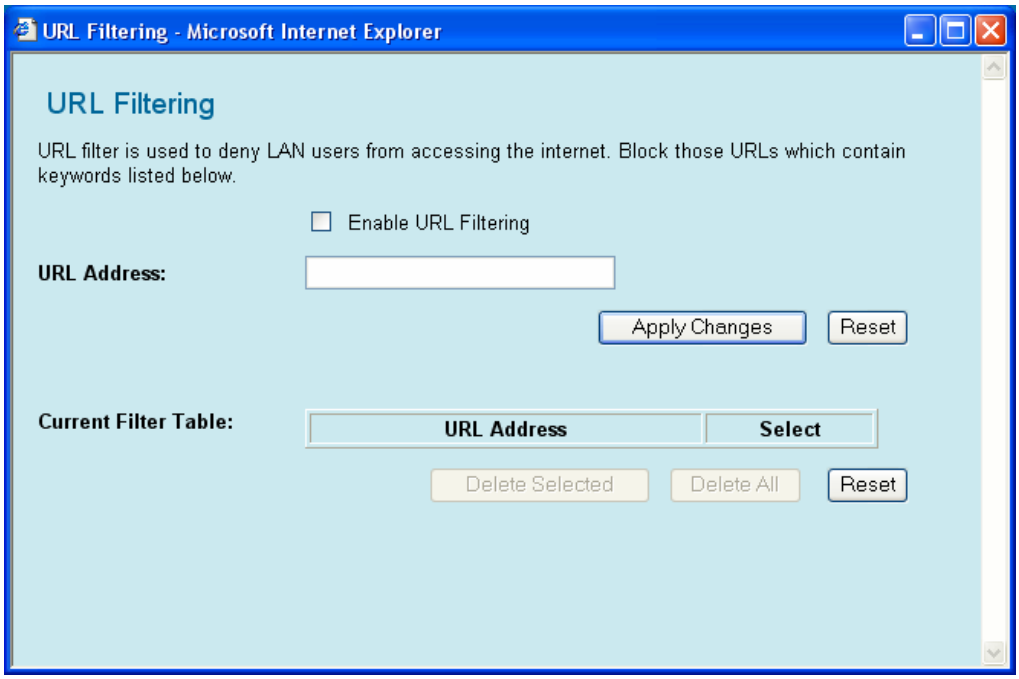
GW-MF54G2 can be configured via Internet. In order to do so, please refer to the steps down below.



- **Enable Web Server Access via WAN:** Click the check box to enable remote management function.
- **Port Number:** Please enter the port number you would like to assign to remote management.
- **Save** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

8. URL Filtering

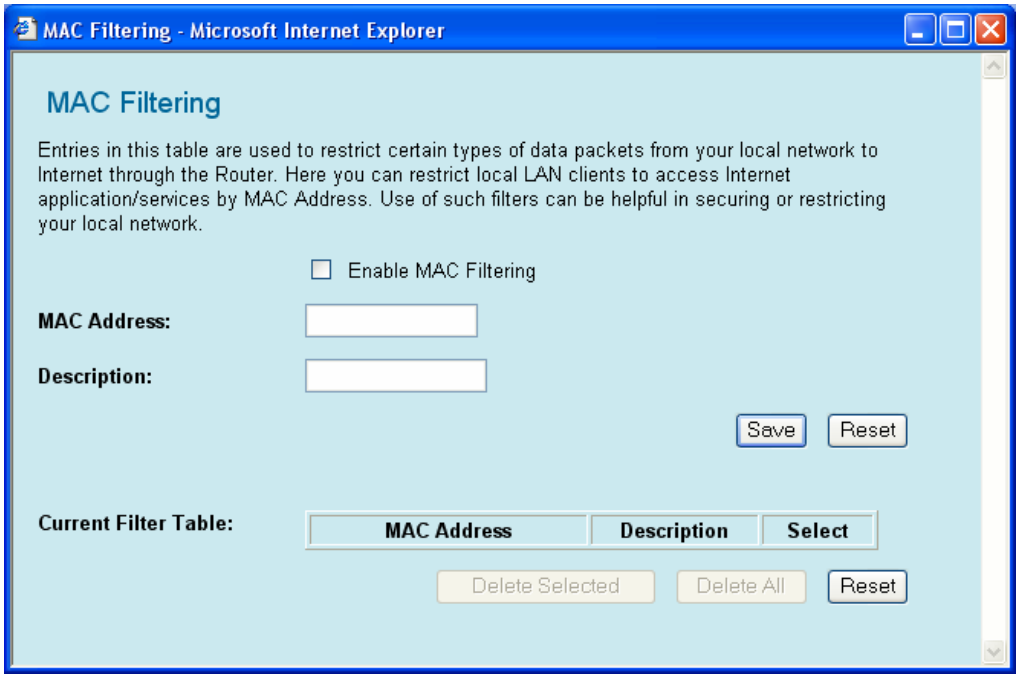
Use URL Filtering to prevent PC users on the local network from accessing websites including the listed URL strings. You can enter some key words such as "adult", "hacker" or other related words to prevent PCs on the LAN from connecting with these websites.



- **URL Filtering:** Click this check box to activate the URL Filtering function.
- **URL Address:** Please enter the URL or specific words contained in the URL you would like to filter out.
- **Save**：Click this button to save the settings and restart the router.
- **Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.
- **Current Access Control List:** You can check the list of all the URLs you added. If you would like to delete a URL from the list, please click the check box on the right side of that URL, and click "**Delete Selected**". If you want to delete all the URLs on the list, please click "**Delete All**".

9. MAC Filtering

You can filter out specific devices with their MAC address. MAC addresses listed in the filtering table will be denied from connecting to the network.


MAC Filtering - Microsoft Internet Explorer
MAC Filtering
Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Router. Here you can restrict local LAN clients to access Internet application/services by MAC Address. Use of such filters can be helpful in securing or restricting your local network.
Enable MAC Filtering
MAC Address:
Description:
Save
Reset
Current Filter Table:
MAC Address
Description
Select
Delete Selected
Delete All
Reset

- **Enable MAC Filtering:** Click this check box to activate the MAC Filtering function.
- **MAC Address:** Please enter the MAC Address you would like to filter out.
- **Description:** Enter any text to describe the MAC which you want to be filtered out.
- **Save** : Click this button to save the settings and restart the router.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.
- **Current Access Control List:** You can check the list of all the MAC addresses you added. If you would like to delete a MAC address from the list, please click the check box on the right side of that MAC address, and click "**Delete Selected**". If you want to delete all the MAC addresses on the list, please click "**Delete All**".

10. IP Filtering

You can block out IPs on your local network from accessing GW-MF54G2 by configuring this page.

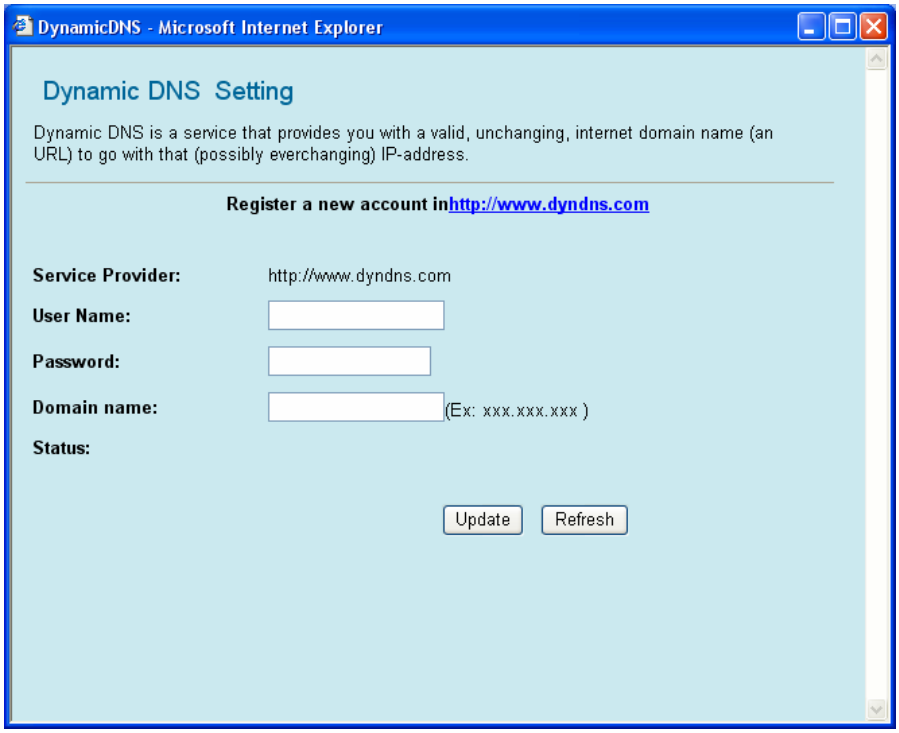
IP Filtering - Microsoft Internet Explorer
IP Filtering
Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Router. Here you can restrict local LAN clients to access Internet application/services by IP Address. Use of such filters can be helpful in securing or restricting your local network.
Enable IP Filtering
Local IP Address:
Protocol:
Both
Description:
Save
Reset
Current Filter Table:
Local IP Address
Protocol
Description
Select
Delete Selected
Delete All
Reset

- **Enable IP Filtering:** Click this check box to activate the IP Filtering function.
- **Local IP Address:** Please enter the local IP Address you would like to filter out.
- **Protocol:** You can set the protocol of the virtual server to be **TCP**, **UDP**, or **BOTH**.
- **Description:** Enter any text to describe the IP which you want to be filtered out.
- **Save** : Click this button to save the settings and restart the router.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.
- **Current Access Control List:** You can check the list of all the IP addresses you added. If you would like to delete a IP address from the list, please click the check box on the right side of that IP address, and click "**Delete Selected**". If you want to delete all the IP addresses on the list, please click "**Delete All**".

11. DDNS

Dynamic DNS can let you connect with one or more DDNS services to update your current dynamic IP address. To make a WEB server publicly accessible on the Internet, a static global IP address needs to be assigned to GW-MF54G2. Even when there is an always-on connection, however, disconnection does occur and the IP address may dynamically change after reconnection. When Dynamic DNS is enabled, the IP address of the product is reported to a Dynamic DNS server at regular intervals so that it can use the same static host name even after IP has changed.

GW-MF54G2 supports DynDNS Dynamic DNS services. DynDNS is a free service. Before enabling DDNS configuration on the product, be sure to access the website and register your user name, password, host name, and so on.



- **User Name:** Enter the User Name you provided while registering for DDNS services.
- **Password:** Enter the Password you provided while registering for DDNS services.
- **Domain Name:** Select the Domain Name which you registered.
- **Update** : Click this button to save the settings and restart GW-MF54G2.
- **Reset:** If there is anything wrong with the settings you made, you can click “reset” to configure the page again.

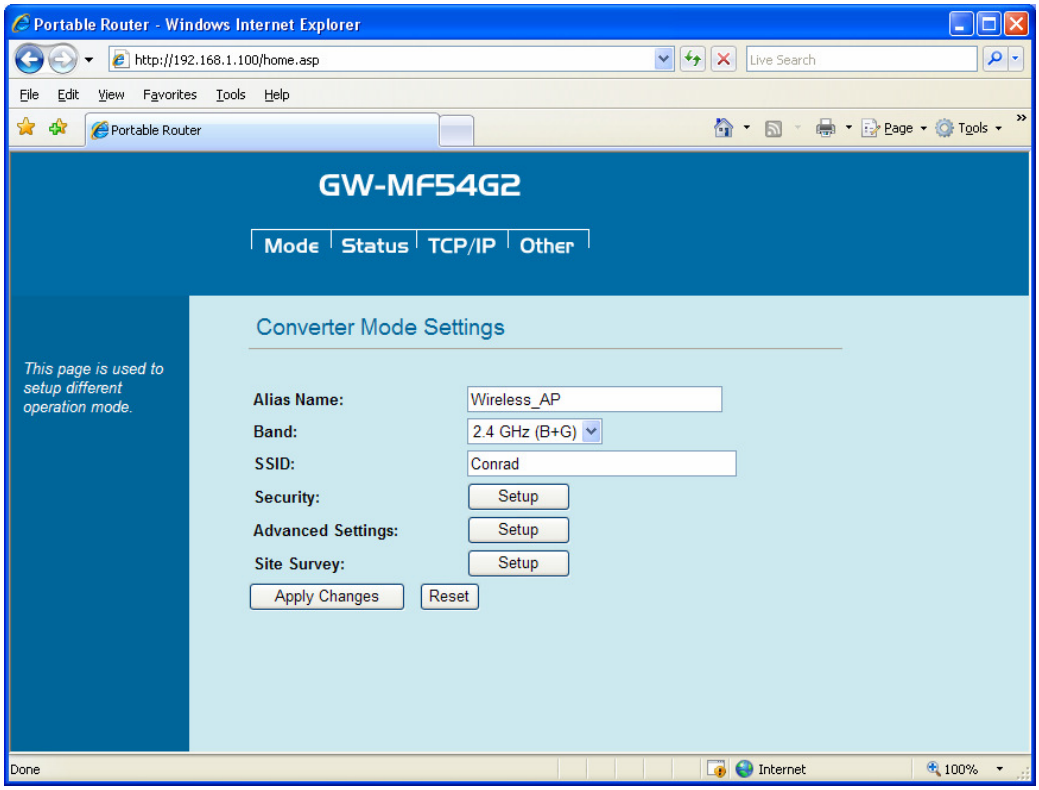
Chapter 5 Client Mode Configuration

Client Mode

In **Client** mode, the Ethernet port of GW-MF54G2 is connected with your computer's LAN port with a RJ-45 cable. In order to have Internet access, you have to connect with other wireless router or devices wirelessly.

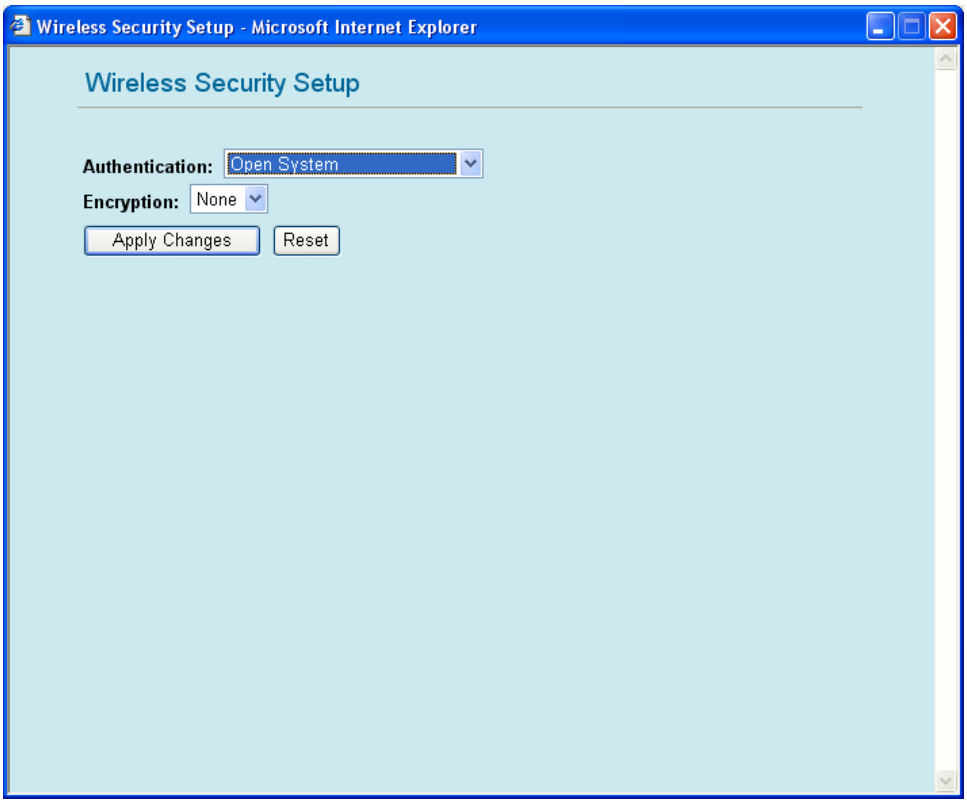
Portable Router - Windows Internet Explorer
http://192.168.1.100/home.asp
Live Search
File Edit View Favorites Tools Help
Portable Router
Page Tools
GW-MF54G2
Mode Status TCP/IP Other
This page is used to setup different operation mode.
Operation Mode
Access Point:
Setup
In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.The wireless mode is AP mode.
Router Mode:
Setup
In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
Converter Mode:
Setup
Client-Infrastructure.
Done
Internet
100%

Please click "**Setup**" to start configuring the AP Mode, and click "**Apply**" to save the changes you made after finishing configuration.



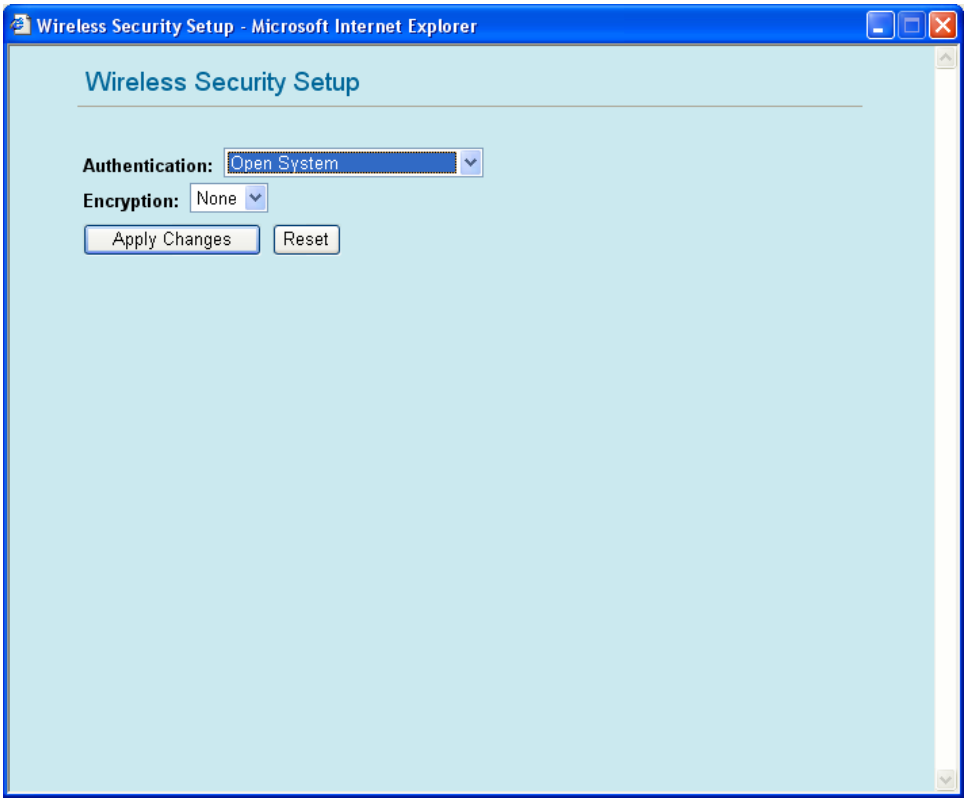
- **Alias Name:** Please enter a name for GW-MF54G2.
- **Band:** Scroll down the list to choose a band width. There are six kinds of modes: **2.4 GHz (B)**, **2.4 GHz (G)**, and **2.4 GHz (B+G)**.
- **SSID:** Every SSID is unique in the WLAN (SSID can be 16-digitASCII characters and case-sensitive). SSID can prevent two nearby WLAN from combining to be one. You can give GW-MF54G2 an SSID, and only whose SSID is the same with it can connect with it. The default SSID is **"CONRAD". Notice: When entering your SSID, please don't use special characters such as "@", "#", "$", "%", "^", "&", "*", "(", and ")". Using special characters or symbols could cause wireless connection difficulties.**

1. Security

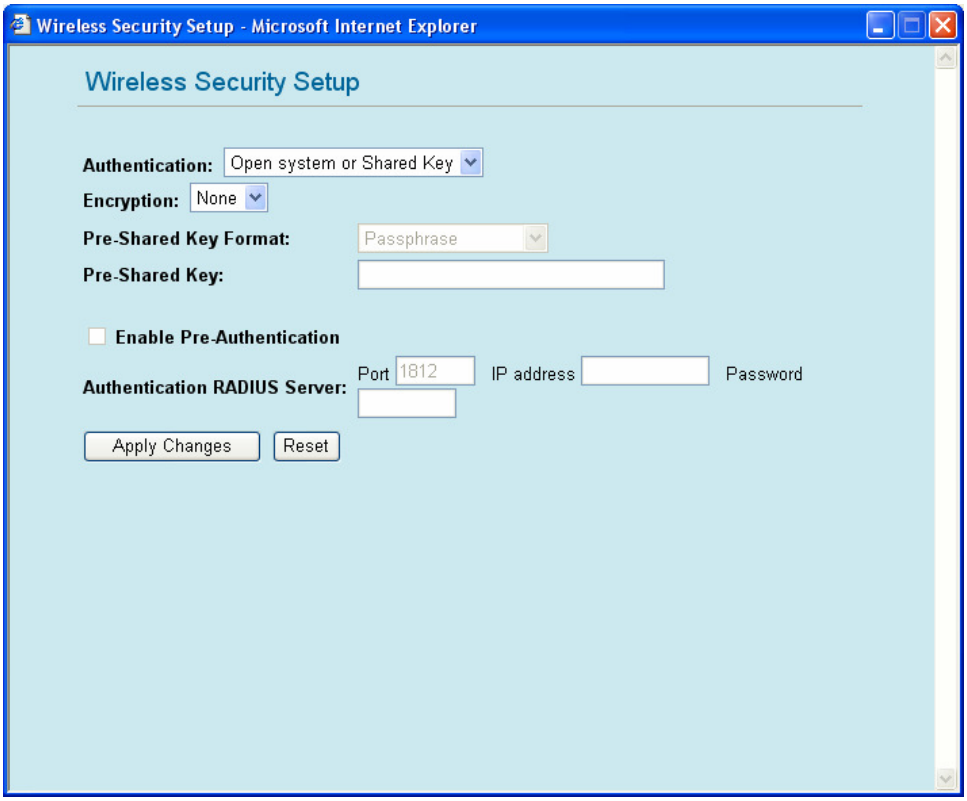


In this page, you can configure the security of your wireless network. Selecting different method can make different levels of security. However, no matter what kind of authentication or encryption you use to prevent data packets from being eavesdropped by people without authentication, it may cause decrease of the data throughput of the wireless connection.

1.1. Open system or Shared Key



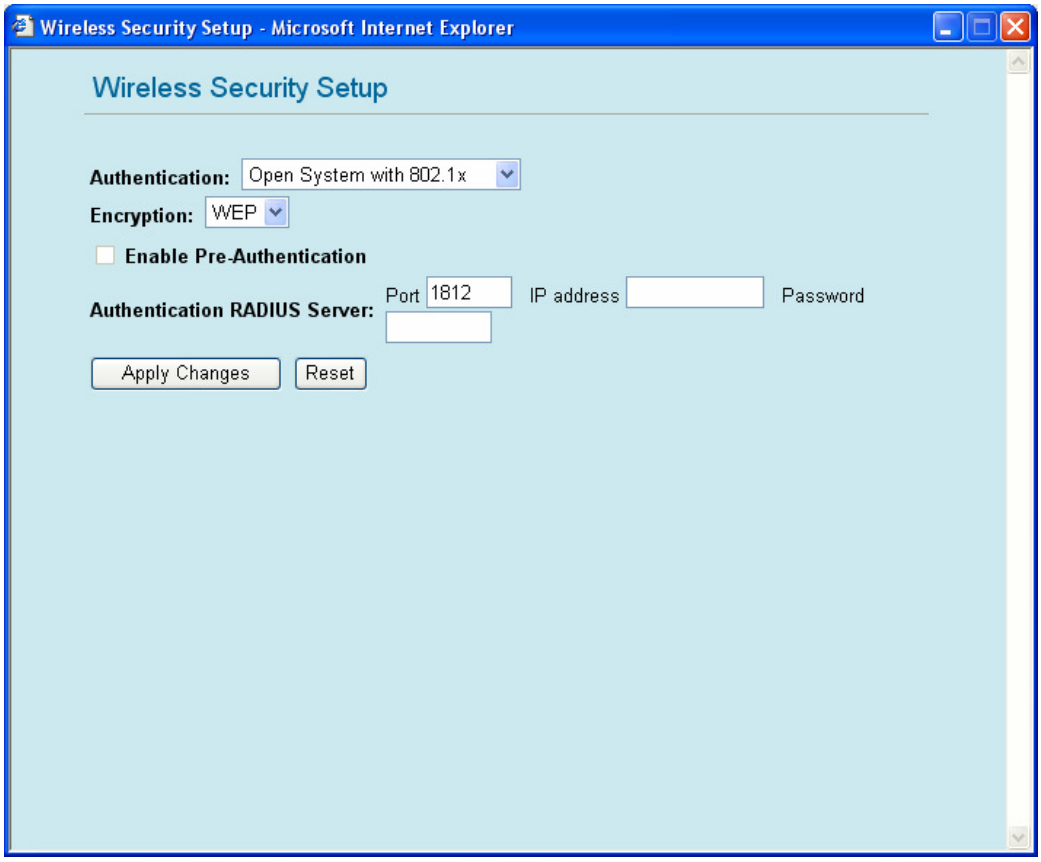
- **Authentication:** Scroll down the list and choose the authentication for GW-MF54G2.



- **Key Length:** Here you can choose the length of your authentication key as **64-bit** or **128-bit.**
- **Key Format:** You can choose the format for your Encryption key here.
- **Default Tx Key:** You can enter four Encryption keys and select one of them as default Tx key. GW-MF54G2 can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4:** Only the Key select in the Default Tx Key will be used for wireless transmission encryption.
- **Apply Changes**：Click this button to save the settings and restart the GW-MF54G2.

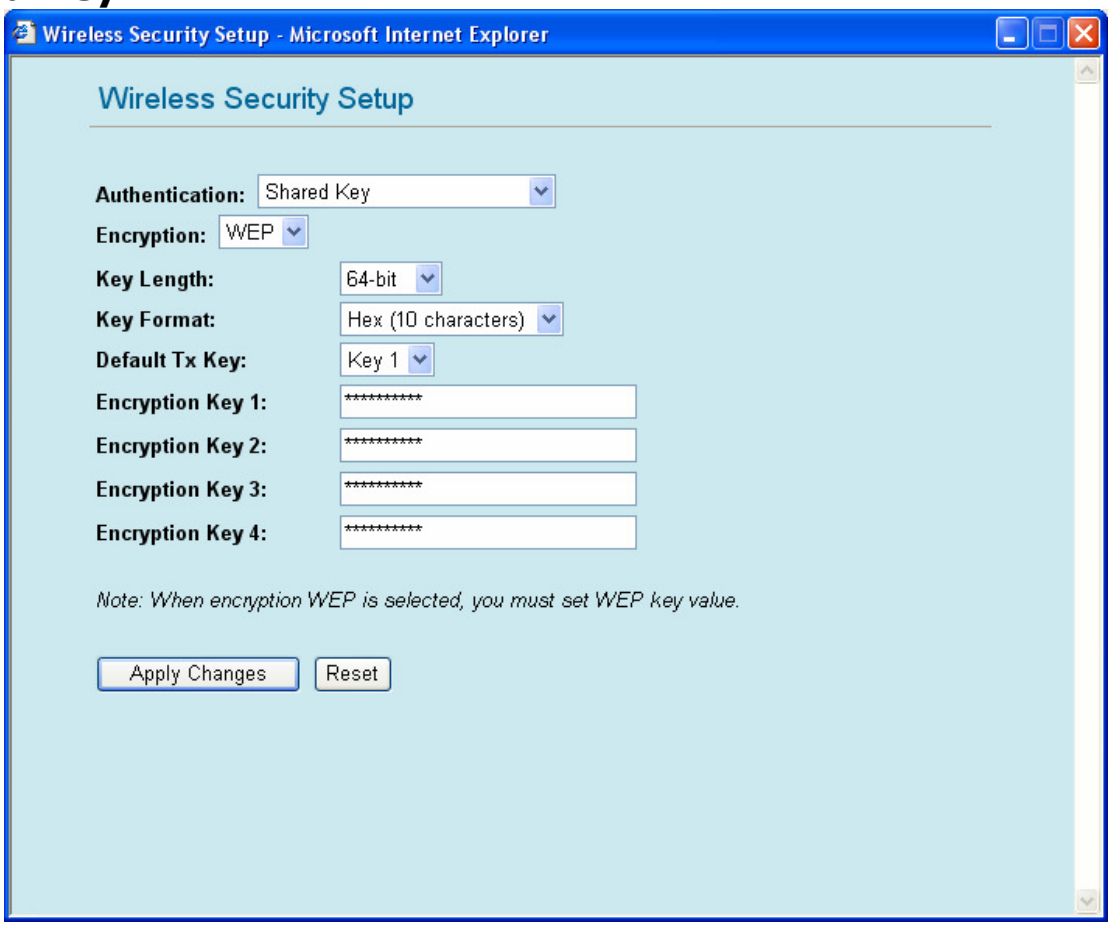
- **Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

1.2. Open system with 802.1x



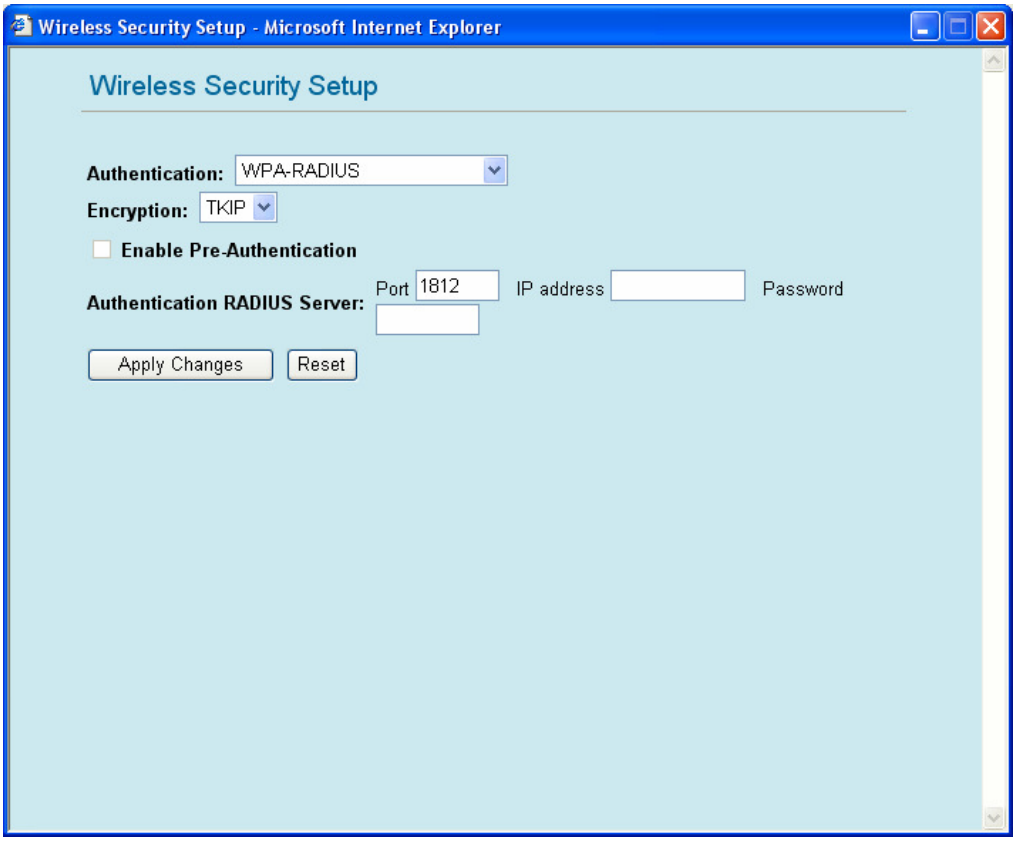
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

1.3. Shared Key


Wireless Security Setup - Microsoft Internet Explorer
Wireless Security Setup
Authentication: Shared Key
Encryption: WEP
Key Length: 64-bit
Key Format: Hex (10 characters)
Default Tx Key: Key 1
Encryption Key 1: **********
Encryption Key 2: **********
Encryption Key 3: **********
Encryption Key 4: **********
Note: When encryption WEP is selected, you must set WEP key value.
Apply Changes
Reset

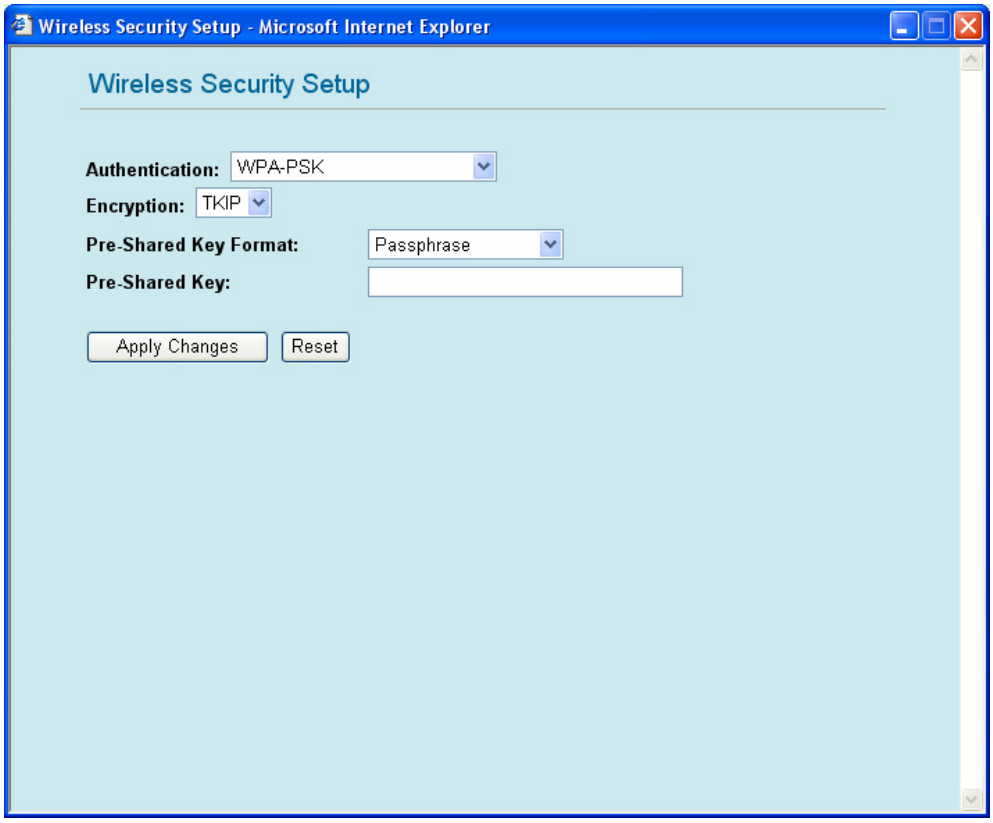
- **Key Length:** Here you can choose the length of your authentication key as **64-bit** or **128-bit.**
- **Key Format:** You can choose the format for your Encryption key here.
- **Default Tx Key:** You can enter four Encryption keys and select one of them as default Tx key. GW-MF54G2 can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default Tx key**" will take effect.
- **Encryption Key 1~4:** Only the Key select in the Default Tx Key will be used for wireless transmission encryption.
- **Apply Changes** : Click this button to save the settings and restart the GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

1.4. WPA-RADIUS



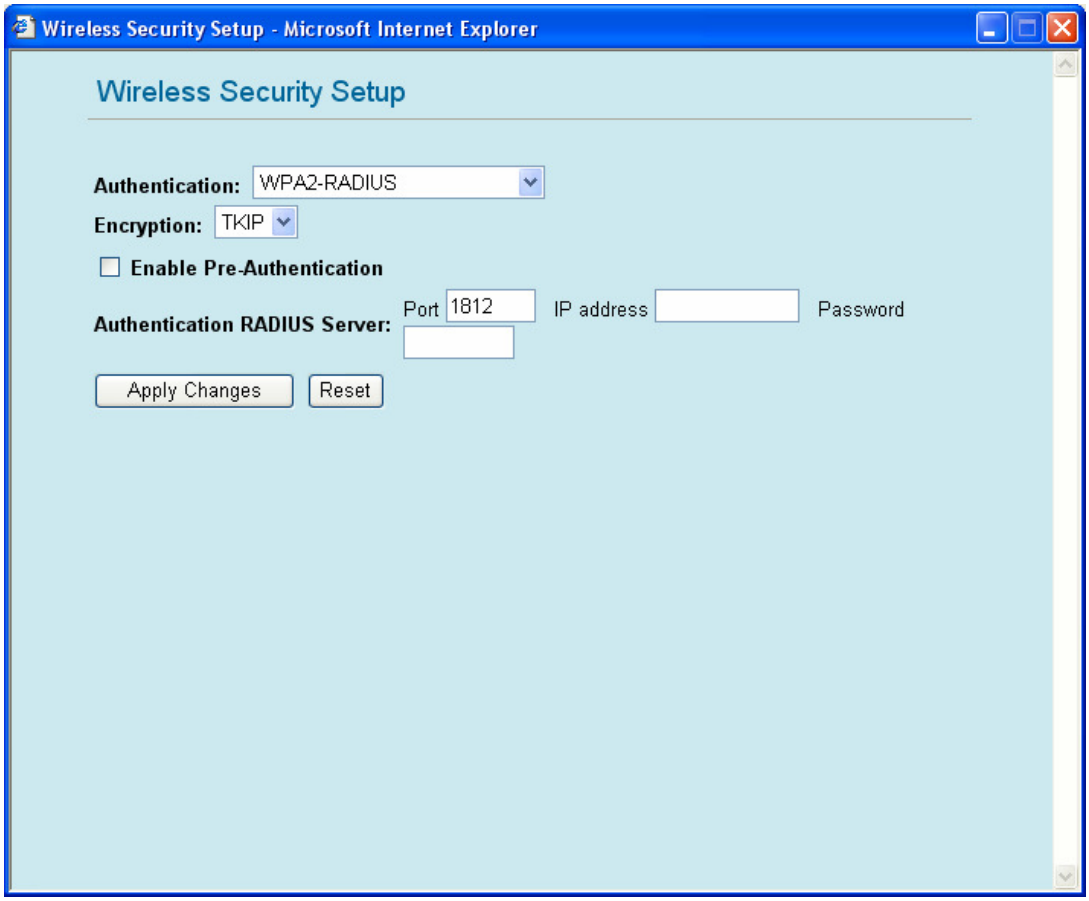
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

1.5. WPA-PSK



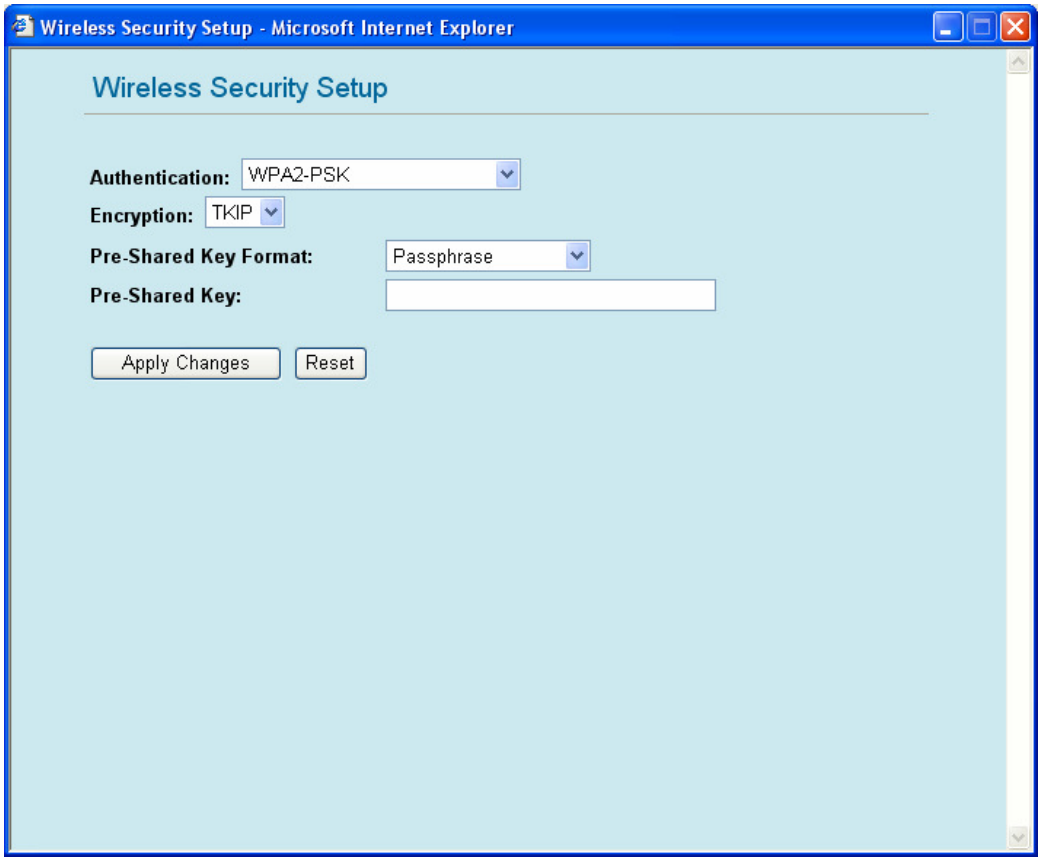
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Pre-shared Key Format:** Scroll down the menu to choose either "**Passphrase**" or "**Hex**".
- **Pre-shared Key:** Only computers sharing the same key with the AP can connect with it. The more random your pre-shared key is, the safer your system is.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

1.6. WPA2-RADIUS



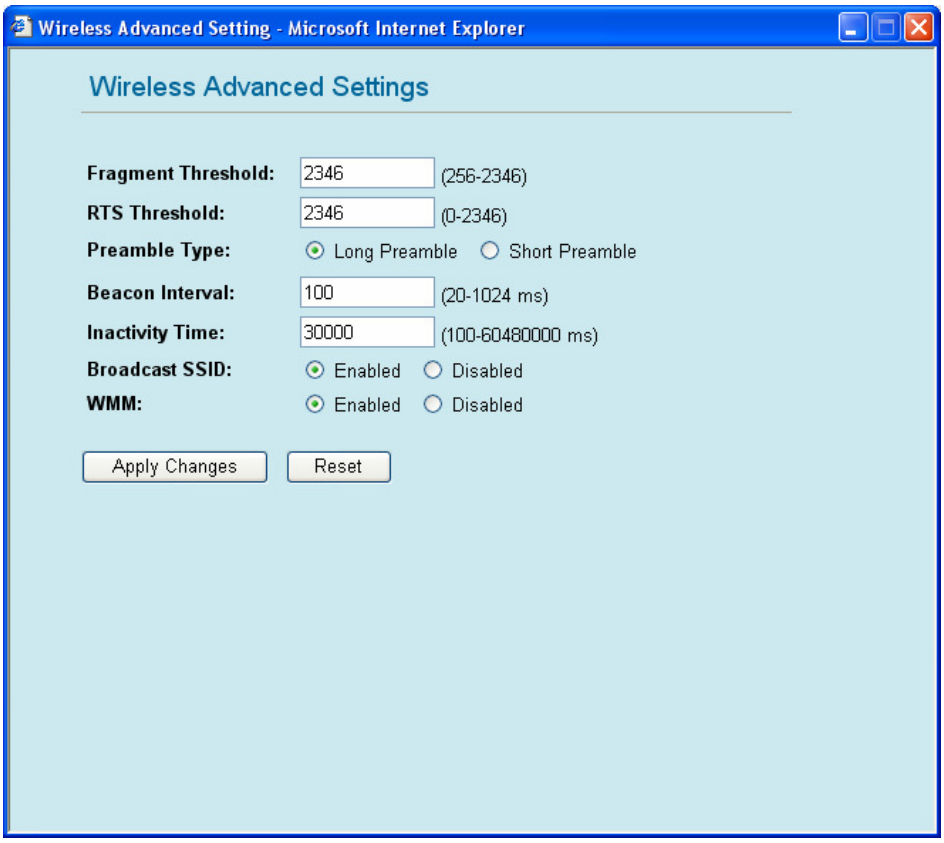
- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Authentication RADIUS Server:**
  - **Port:** Please input the port number of your RADIUS authentication server here.
  - **IP address:** Please input the IP address of your RADIUS authentication server here.
  - **Password:** Please input the password of your RADIUS authentication server here.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

1.7. WPA2-PSK



- **Encryption:** Scroll down the list and choose your encryption. You can choose either **TKIP** or **AES**.
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
- **Pre-shared Key Format:** Scroll down the menu to choose either "**Passphrase**" or "**Hex**".
- **Pre-shared Key:** Only computers sharing the same key with the AP can connect with it. The more random your pre-shared key is, the safer your system is.
- **Apply Changes** : Click this button to save the settings and restart GW-MF54G2.
- **Reset** : If there is anything wrong with the settings you made, you can click "reset" to configure the page again.

2. Wireless Advanced Settings


Wireless Advanced Setting - Microsoft Internet Explorer
Wireless Advanced Settings
Fragment Threshold: 2346 (256-2346)
RTS Threshold: 2346 (0-2346)
Preamble Type: Long Preamble Short Preamble
Beacon Interval: 100 (20-1024 ms)
Inactivity Time: 30000 (100-60480000 ms)
Broadcast SSID: Enabled Disabled
WMM: Enabled Disabled
Apply Changes
Reset

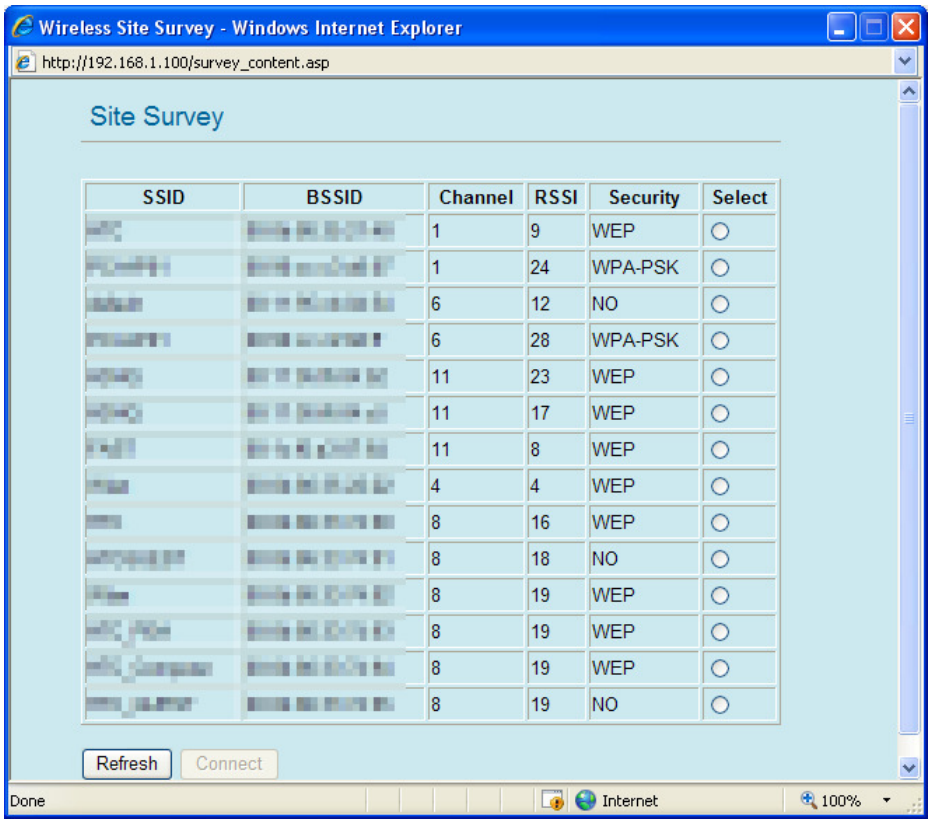
- **Fragment Threshold** : This value can define the maximum packet sized, so the packets bigger than this size will be segmented. If you set the lower value, and found there is higher packets error value, you can set the value higher, however, that may decrease the whole performance of GW-MF54G2. The default value is **2346**, and you can set a value between **256~2346**.
- **RTS Threshold** : Here you can define the minimum value of RTS (Request to Send) packets and prevent "**Hidden Nodes**" problems. Please enter a value between 0~2347, and when the packets are bigger than the RTS value the function will start to work.
- **Preamble Type** : A preamble is a signal used in wireless environment to synchronize the transmitting timing including synchronization and start frame delimiter. It can also define the length of CRC (cyclic redundancy check) blocking. There are two Preambles: **Long** and **Short**. When the traffic is heavier, the shorter preamble should be used.
- **Beacon Interval** : Beacon Interval is the amount of time between beacon transmissions. Before a station enters power save mode, the station needs the beacon interval to know when to start up again and receive the beacon.
- **Inactivity Time:** GW-MF54G2 will disconnect from the network if there are no network actions within the inactivity time.
- **Broadcast SSID:** If you check the check box of "**Disable**", SSID of GW-MF54G2 will not appear on the other PC's wireless network list. Therefore, the Wireless Router/AP can block the users without authentication.
- **WMM:** You can enable or disable this function. GW-MF54G2 supports **WMM(Wi-Fi Multimedia)** function. WMM is short for **W**i-Fi **M**ulti**m**edia. It is a standard created to define quality of service (QoS) in Wi-Fi networks. It is a precursor to the upcoming IEEE 802.11e WLAN QoS draft standard, which is meant to improve audio, video and voice applications transmitted over Wi-Fi.

WMM adds prioritized capabilities to Wi-Fi networks and optimizes their performance when multiple concurring applications, each with different latency and throughput requirements, compete for network resources.

- **Apply Changes**：Click this button to save the settings and restart GW-MF54G2.
- **Reset**：If there is anything wrong with the settings you made, you can click “reset” to configure the page again.

3. Site Survey

Click "**Setup**" to find any other wireless devices available for wireless connection.



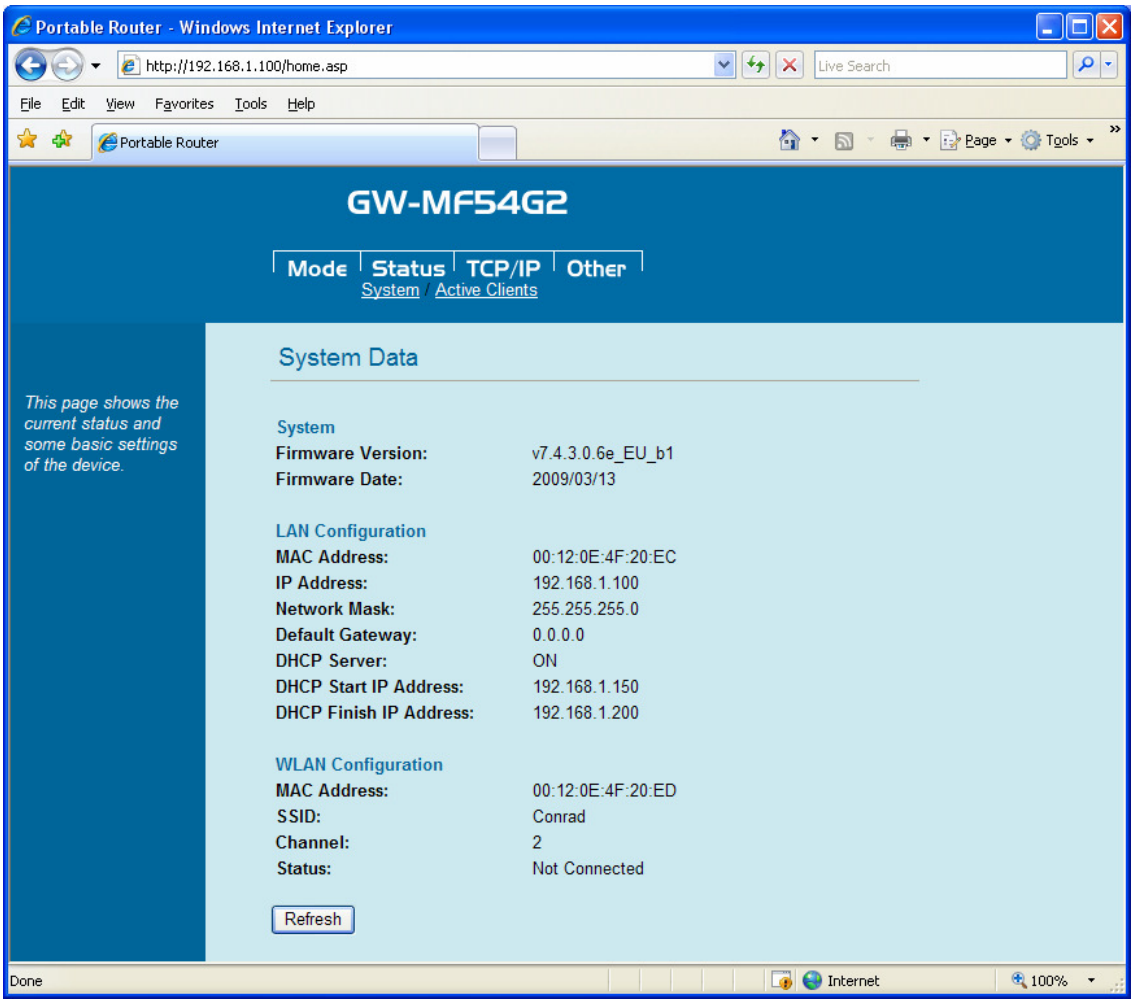
- **Refresh:** Click this button to refresh the wireless device list.
- **Connect:** If you want to connect to the specific wireless device, please click the check box on the right side of the device, and click "**Connect**" button.

Chapter 6 Other Functions and Configurations

1. Status

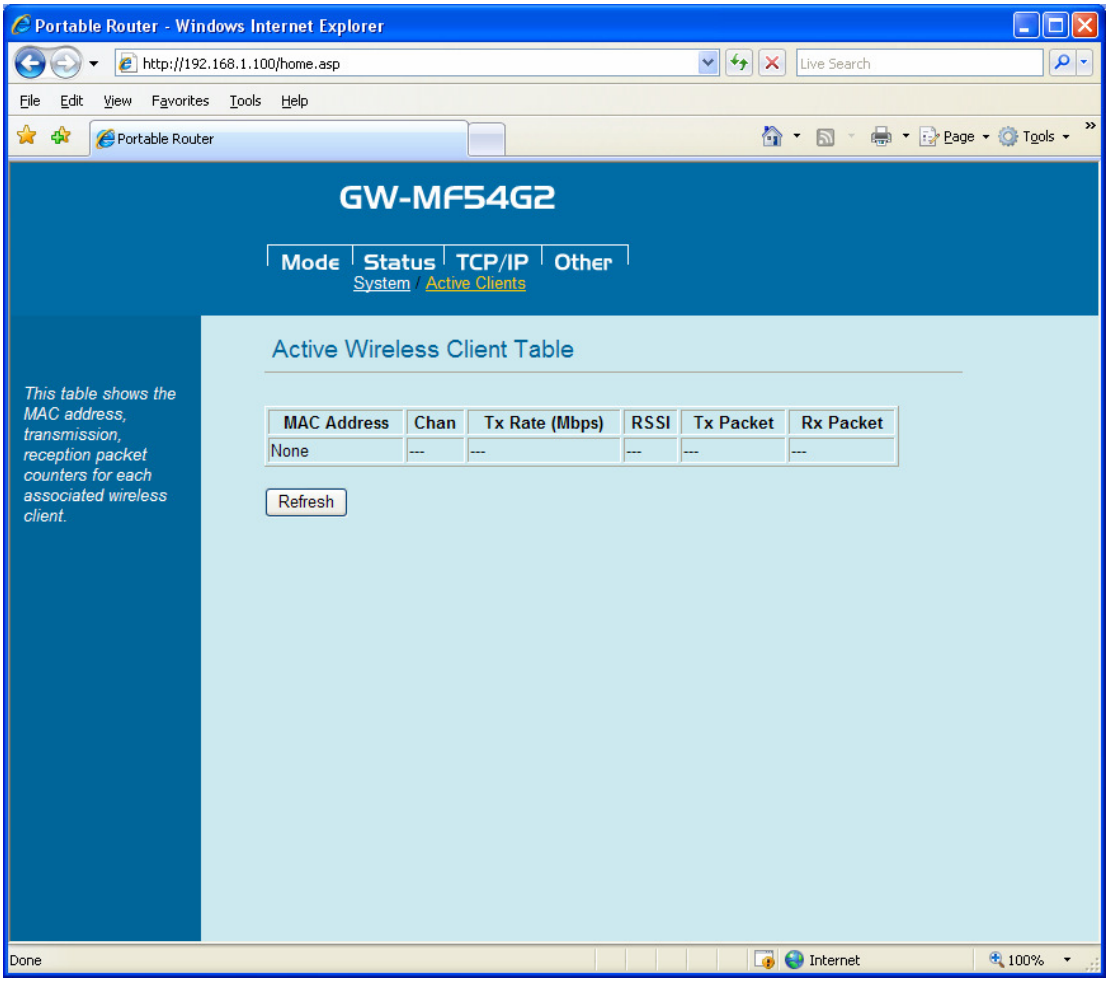
This page shows the general current system status.

1.1. System Status



- **Refresh:** Click this button to refresh the status.

1.2. Active Clients

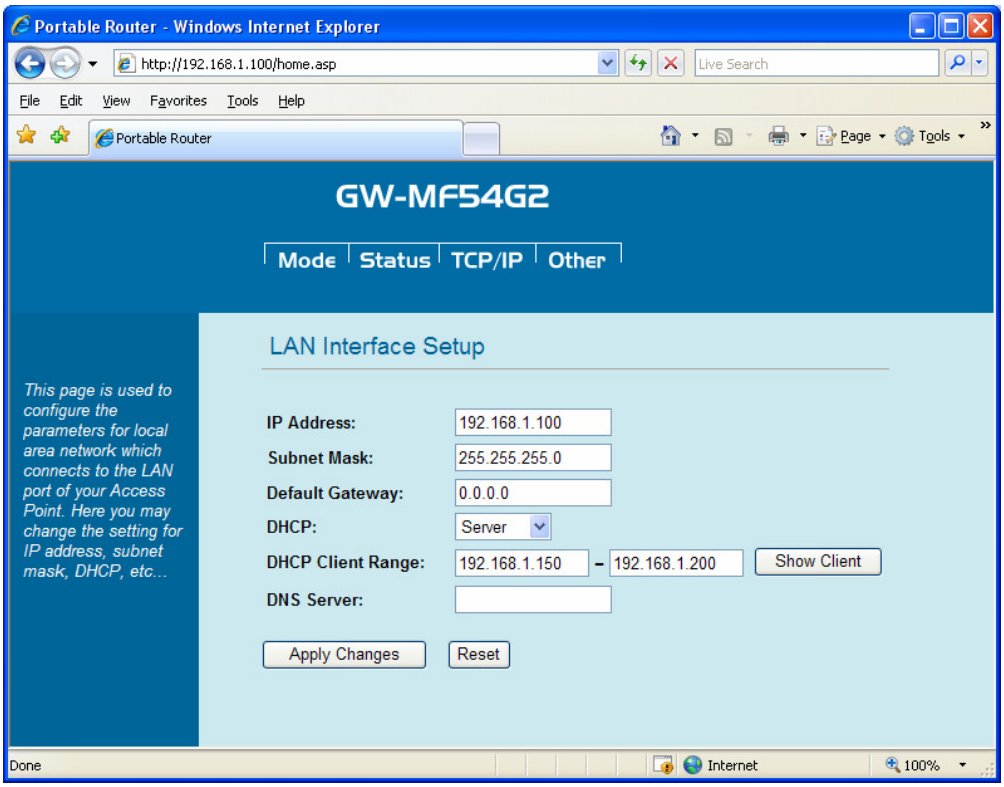

Portable Router - Windows Internet Explorer
http://192.168.1.100/home.asp
Live Search
File Edit View Favorites Tools Help
Portable Router
Page Tools
GW-MF54G2
Mode Status TCP/IP Other
System / Active Clients
Active Wireless Client Table
This table shows the MAC address, transmission, reception packet counters for each associated wireless client.
MAC Address Chan Tx Rate (Mbps) RSSI Tx Packet Rx Packet
None --- --- --- --- ---
Refresh
Done
Internet
100%

- **Refresh:** Click this button to refresh the information show below.

2. TCP/IP

This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP address, subnet mask, DHCP and so on.

DHCP stands for Dynamic Host Control Protocol. GW-MF54G2 Wireless Broadband Router has a built-in DHCP server which can automatically assign an IP address to those computers on the LAN/private network. Click the check box to enable DHCP server.


Portable Router - Windows Internet Explorer
http://192.168.1.100/home.asp
Live Search
File Edit View Favorites Tools Help
Portable Router
Page Tools
GW-MF54G2
Mode Status TCP/IP Other
LAN Interface Setup
This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP address, subnet mask, DHCP, etc...
IP Address: 192.168.1.100
Subnet Mask: 255.255.255.0
Default Gateway: 0.0.0.0
DHCP: Server
DHCP Client Range: 192.168.1.150 - 192.168.1.200 Show Client
DNS Server:
Apply Changes Reset
Done
Internet
100%

- **IP Address:** Here is the IP address of the LAN side of GW-MF54G2. It is usually the default gateway of the client's PC. The default IP address is "**192.168.1.100**". **Note: If you change the default IP Address of GW-MF54G2, remember to change the IP Address accordingly when log on to the GW-MF54G2 Web Configuration.**
- **Subnet Mask:** The Subnet Mask of the LAN side of GW-MF54G2 is "**255.255.255.0**". by default.
- **Default Gateway:** Enter the Gateway address provided by your ISP.
- **DHCP:** Scroll down the menu to choose either you would like GW-MF54G2 to be a DHCP **Server** or a DHCP **Client**, or you can choose "**Disable**" to disable the DHCP function.
- **DHCP Client Range:** Please enter the first and the last IP addresses which GW-MF54G2 distributes IP addresses to. The IP addresses in this range can get assigned IP addresses from GW-MF54G2. (However, all the PCs on the same LAN should use the same subnet mask.)
- **Show Client:** Click this button to show all the assigned IP Addresses, MAC addresses and time expired for each and every leased client.
  - **Apply Changes**：Click this button to save the settings and restart the GW-MF54G2.
  - **Reset**：If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.

3. Other

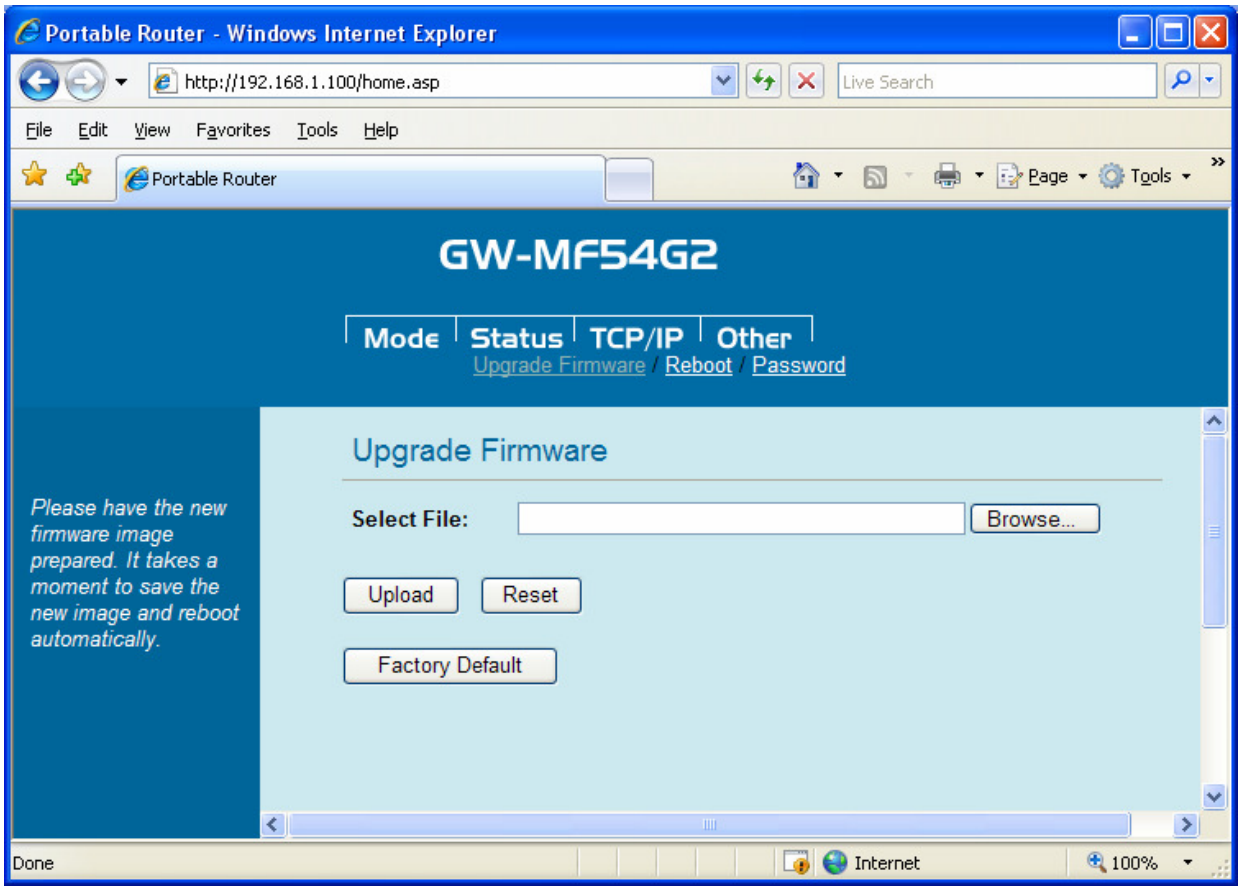
You can update your firmware, reboot the system, or change your password in this page.

3.1. Upgrade Firmware

You can upgrade the firmware of GW-MF54G2 via Web Browser.

Be sure that the firmware is stored in your PC's disk and then click "**Browse...**" to search for the firmware file which you just downloaded. Click "**Open**" to use the firmware and click "**Apply**." After the dialog box pops up and ask you if you want to continue upgrading the firmware, you can click "**OK**" to start upgrading immediately. Upgrading firmware will not change any settings.

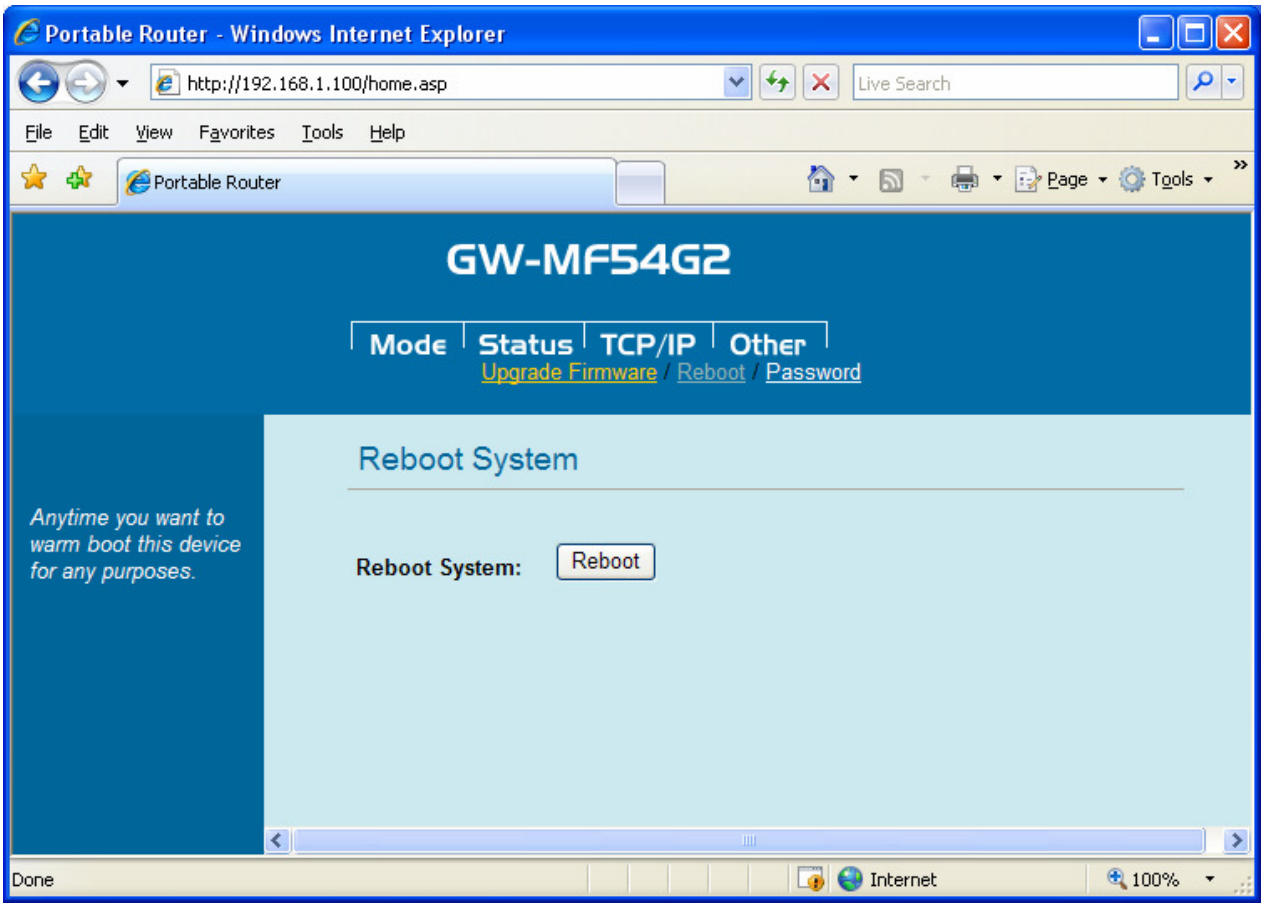
It takes about 2~3 minutes to upgrade the firmware. When upgrading, please do not turn off the power of GW-MF54G2. After finishing upgrading, GW-MF54G2 will restart automatically.



- **Browse:** Click this button to select the firmware you saved on your computer and upload it.
- **Upload:** Click this button after you selected the firmware you wish to upload.
- **Reset:** If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.
- **Factory Default:** lick this button to have all the settings reset to factory default value.

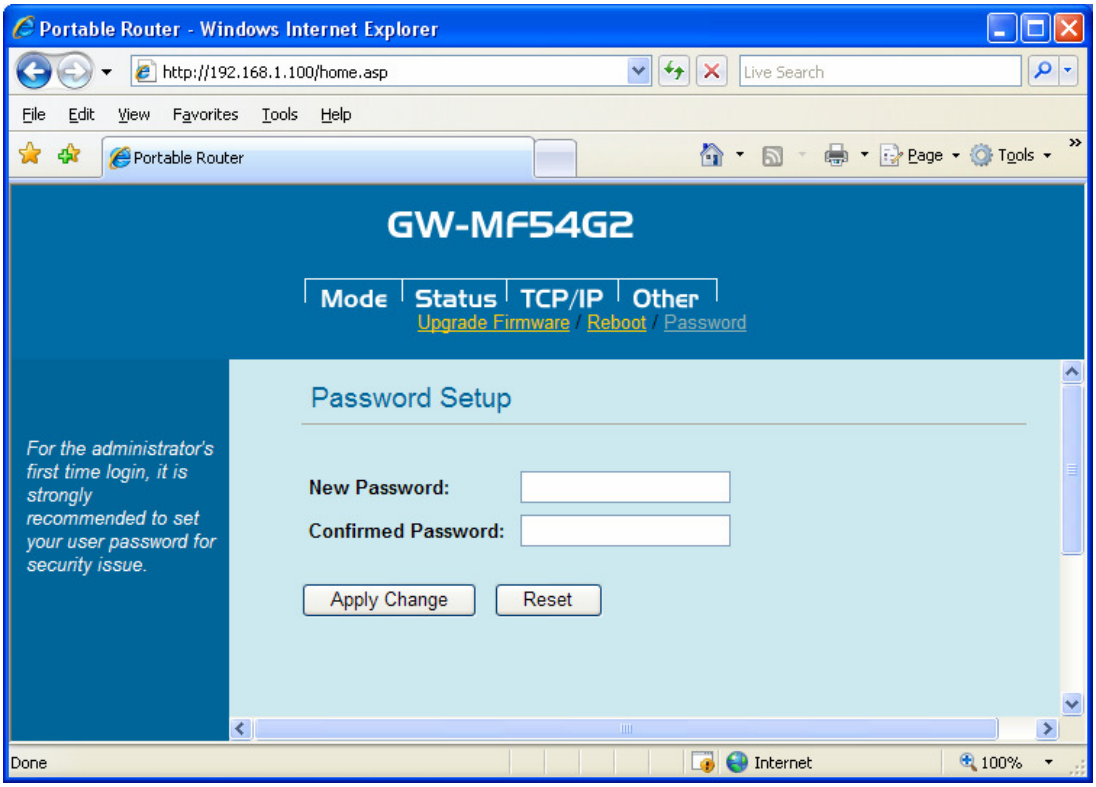
3.2. Reboot

Click "**Reboot**" button to reboot the system. It will take about 30 seconds to reboot the system, please do not turn GW-MF54G2 while system is rebooting.



3.3. Password

GW-54MFG2's default login user name is "**admin**", and the default password is "**0000**". For your system's security, it is recommended that you change your password as soon as you log on to the GW-MF54Gs configuration webpage for the first time. If you forget your new user name and password, you will have to reset GW-MF54G2 to default value via the reset button in order to log in with the default login user name "**admin**" and the default password "**0000**".



- **New Password:** Please enter your new password. The password must be alphanumeric characters and case sensitive.
- **Confirm Password:** Enter the password again for verification.
- **Apply Changes**：Click this button to save the settings and restart the GW-MF54G2.
- **Reset:** If there is anything wrong with the settings you made, you can click "**reset**" to configure the page again.